A COMPUSERVE PUBLICATION PRINTED MONTHLY/ONLINE DAILY

ONLINE TODAY

THE COMPUTER COMMUNICATIONS MAGAZINE

May, 1987 $2.50

CRITICS' CHOICE

Search a Digest of Book Reviews

MAKING A MOVE

Demographic Databases Make Relocation Easier

FORUMS

Online Meeting Places Generate Discussions

"Custom-tailored...like NewsNet."

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How Instant Demographics™ and I found new banking, mall and health care sites . . . over a cup of coffee.

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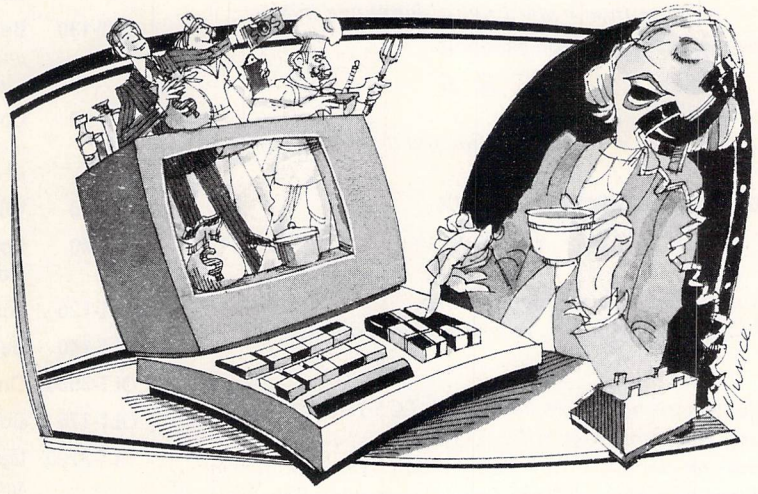
I got them all of this information over 3 cups of coffee one day last week. That's when "Wonderwoman" became my name.

Data for any market size or shape.

I can zero in on specific intersections, ZIP codes, census tracts, circles of any radius, coffee stains on the map—



"You were right! Your market's out there, and we've found it."

markets of any size or shape. Or counties, ADI's, states, you name it. I can analyze one site or compare a thousand.

At the tips of my fingers—thousands of custom reports.

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ELECTRONIC EDITION

Online Today Electronic Edition provides daily-updated computer and information industry news, coverage of CompuServe services, commentary, computer product reviews and more.

GO OLT **A GO-Page Directory** *of the day's top computer industry news and a summary of key OLT page numbers.*

OLT-160 **The Monitor Daily News** *main menu.*

OLT-90 **Today's Computer and Information Industry News.**

OLT-20 **The Current Week's Monitor News.**

OLT-130 **Behind the Screens.** *Computer and information industry news, rumor and gossip.*

OLT-50 **CompuServe Update** *main menu. Lists all CompuServe news departments.*

OLT-70 **What's New on CompuServe.**

OLT-80 **CompuServe Community News.**

OLT-120 **Forum Conference Schedules.**

OLT-140 **Beginner's Corner.**

OLT-3500 **Online with Charles Bowen.**

OLT-175 **Columns by Dan Gutman.**

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OLT-1000 **Computer Events Calendar.**

OLT-2000 **OLT Special Reports.**

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OLT-230 **Software Reviews** *main menu.*

OLT-240 **Book Reviews** *main menu.*

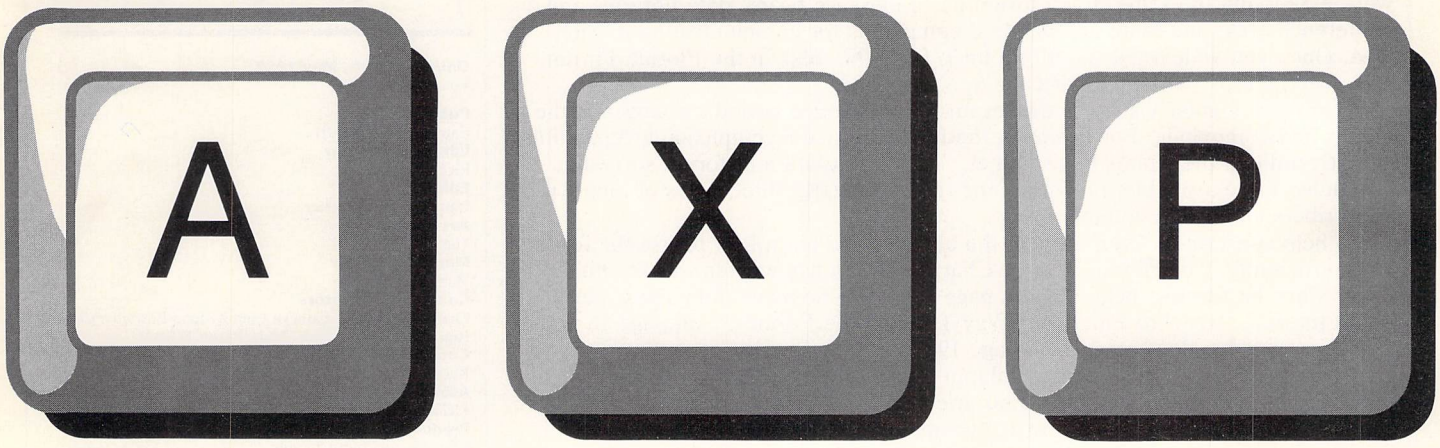
OLT-250 **New Product Announcements** *main menu.*

EBB-11 **Instructions** *on use of the Electronic Bounce Back reader service system.*

EBB-160 **Online Today Display Ads** *main menu.*

EBB-70 **Shopper's Guide.**

THE KEYS TO ADVANCE



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AMERICAN EXPRESS®

GO EBB or circle 3 on the Reader Service Form.

DEAR READER

Star gazers, wine tasters, entrepreneurs, military veterans, lawyers and photographers are only a few of the groups that have online meeting places, called forums, on CompuServe. Yet, despite the uniqueness of the forum topics, all forums work essentially the same. Each forum has a message board, data libraries and a conference area, and there are standard commands for communicating in each area. Once you've learned the forum lingo from the folks in the Florida Forum, you won't get lost when you visit the Space Forum.

If you're a regular visitor to the forums, you'll notice periodic changes in the menus and commands. For example, the forums added free uploading capabilities and streamlined the menus last summer. A new generation of forum software, scheduled to be available this fall, is the result of nearly three years of input from subscribers and forum administrators.

To help subscribers keep up with the changes and learn how to use the forums more efficiently, Contributing Editor Charles Bowen has written this month's cover story on forums, beginning on page 12. With the main story there's an in-depth tutorial, "How to Find Your Way Through the Forums," on page 16 and a report on forum enhancements on page 19.

This issue's Beginner's Corner column by David Peyton takes the mystery out of squeezed files in the forum data libraries. Find out how to recognize a squeezed file at a glance and how to "unsqueeze" it on page 43.

* * *

Locating the right book doesn't have to mean spending hours at the library. With the Book Review Digest database, available to CompuServe subscribers through IQuest, you can quickly search excerpts and review citations for more than 6,000 English language books. During May this database's search charges will be waived; you pay only CompuServe connect charges and applicable communications surcharges. For details, see page 42.

Douglas G. Branstetter
Editor

ONLINE TODAY

***Online Today*®, May 1987**
Volume 6 Number 5

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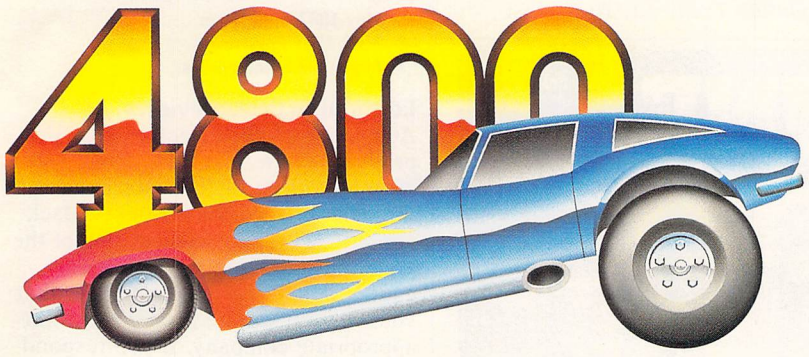
FAST COMPANY



FAST In its "B" configuration, the UDS 208A/B moves data at 4800 bps, half-duplex, over dial-up telephone lines. Its auto-answer feature permits unattended operation, and auto-dialing capability can be added. Three simple strap changes convert the device to the "A" configuration, permitting full-duplex operation over four-wire circuits.

FASTER The 9600A/B is UDS' answer to the demand for 9.6 kbps communication. Like its 2400 bps counterpart, it can be changed from dial-up to dedicated line configuration (or vice versa) in the field. Complete self-test and remote loop-back capabilities simplify system diagnostics; the modem is available as a free-standing unit or as a rack-mountable card.

FASTEST Now you can push your dial-up data communications system all the way to 14.4 kbps! The UDS 14.4A/B is trellis coded, giving you top performance, even under undesirable line conditions. Fall-back data rates of 12 and 9.6 kbps are provided. Contact Universal Data Systems, 5000 Bradford Drive, Huntsville, AL 35805. Phone 205/721-8000; Telex 752602 UDS HTV.

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Created by Dayner/Hall, Inc., Winter Park, Florida

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Guidelines to Requesting Information Through EBB

Electronic Bounce Back

Electronic Bounce Back is *Online Today*'s electronic version of the traditional reader inquiry card. To request additional information about products or services described in *Online Today*, simply access CompuServe and type GO EBB at any prompt.

CompuServe Page EBB-1
ONLINE TODAY ADVERTISERS
ELECTRONIC BOUNCE BACK (EBB)

1. EBB Instructions
2. Online Today Display Ads
3. Print Edition Reviews
4. Shopper's Guide Classifieds

Display Ads

GO EBB-160. Inquiries to this section will be followed by a brief description of the *Online Today* ad. To request additional printed information, simply enter your name and address at the prompts. EBB will add your User ID number and electronically forward your request to the appropriate advertiser(s). The names, addresses and User ID numbers will also be forwarded via US Mail at the end of each month.

CompuServe Page EBB-160
ONLINE TODAY ADVERTISERS/EBB

1. May 1987 Advertisers
2. April 1987 Advertisers
3. March 1987 Advertisers

Editorial Articles/Reviews

At the end of each electronic version product review, you'll be asked if you wish to request further information through the Electronic Bounce Back system. A "yes" response will let the system prompt you for your name, address and other information so that your request can be forwarded to the appropriate company. If you respond "no," the system will return you to the previous menu.

To request information about products reviewed in the print edition, go to page EBB-280 and select the appropriate listing, such as May Hardware Reviews. At the next menu, select the product you're interested in. If you answer "yes" at the question prompt, the EBB system will prompt you for the necessary information.

Requests to these sections will be stored and forwarded by traditional mail once each month.

CompuServe Page EBB-280
REVIEW LISTINGS/PRINT EDITION

1. May Hardware Listings
2. May Software Listings
3. May New Product Listings

Shopper's Guide

GO EBB-70. This is *Online Today*'s classified section and is designed to enable readers to easily scan areas of interest.

To request information from Shopper's Guide advertisers, send messages via CompuServe EasyPlex or use traditional methods of communication.

CompuServe Page EBB-70
SHOPPER'S GUIDE

1. About Shopper's Guide
2. Rates and Information
3. Software
4. Services
5. Hardware
6. General

***Note:**
Additional requests during the same session will not require you to re-enter your name and address.

KEEP ONLINE TODAY & ALWAYS

Each issue of *Online Today* is filled with information which CompuServe subscribers benefit from having close at hand for reference.

Use these handsome binders and slip covers to store and protect your back and future editions.

Both styles of case are handcrafted in leather-like fabric, similar to the storage units used by libraries to shelve and preserve their periodicals. And the spines of all cases are embossed with the *Online Today* logo for easy identification on any bookshelf.

The binders open flat like a book and hold up to 12 magazines each with a sturdy cable that passes through the center pages of each issue.

The cases hold 12 unbound issues apiece — so that each can be removed for individual reference.

Mail to: Online Today Magazine
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Slipcases: $7.95 each
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LETTERS

Low-tech Products

I have a comment on "Senators Support Low-tech Products" (February 1987, p. 10). I take exception to that article, not because I agree with the senators, but because you do not *say* anything in it.

If we of the high-tech community are to keep free of the image of being "crackers" or some other kind of undesirables, then we must refuse to enter into slang matches with our detractors. If you want to show something that is going on in Washington, D.C., you must first say *what* that something is. The article did not do this.

The low-tech people, if they get hold of something such as what you (failed to) say, then you are reinforcing the image that all computer people are "crackers" or that the people who run online services do not care who uses them.

If you must comment on somebody's actions, please do so properly in the future.

Robert G. Hays
Duluth, Ga.

Online Today Electronic Edition

I enjoy *Online Today Electronic Edition*, especially the rumors in the "Behind the Screens" column. I have not signed on for a month and was wondering where the "Product Reviews" are located now.

Alan Howard
Calgary, AB

Editor's Note: To access the "Product Reviews" section of Online Today Electronic Edition, *type GO OLT-200. Off that menu, you'll find Hardware Reviews (GO OLT-220), Software Reviews (GO OLT-230), Book Reviews (GO OLT-240) and New Product Announcements (GO OLT-250).*

Independent Computer Consultants

I appreciate the coverage given to the Independent Computer Consultants Association by James Moran. He has written several articles on Section 1706 of the 1986 Tax Reform Act that accurately reflected the state of our industry. Thanks for providing this coverage.

Theresa W. Carey
President
ICCA-Northern California
Palo Alto, Calif.

Apple Reviews

I received the March 1987 issue of *Online Today* and enjoyed it very much. Overall I find each issue better than the previous one, but lately the magazine has had less information about Apple computers.

As an Apple IIGS owner, I quite frankly cannot understand why there isn't more coverage of Apple personal computers. After all, Apple computers were developed before the IBM PC and there are more Apple users nationwide.

Dennis A. Berk
Los Angeles, Calif.

Atari Coverage

I have been a CompuServe subscriber for several years and I've noticed that *Online Today* articles and ads tend to overlook Atari computers. Atari users would like to see this changed.

When you list a software program that is available for any of the Atari computers, why not mention that? Manufacturers' specification sheets usually list all computers that a hardware or software item is produced for, but you seem to selectively shorten the list when you do a product review.

The next time you write an article about telecommunications or a listing of BBSes, remember that Atari users have modems, too. Your job is to report information impartially for all of the different types of computer users represented on the CompuServe Information Service.

Gerald S. Feid
Norridge, Ill.

Monitor Correction

In the article "Software Center Helps Handicapped" (March 1987, p. 8) the 800 number (800/327-5462) is incorrect. The correct 800 number is 800/327-5892.

"Dick Johnson in accounting is having a heart attack!"

Would you know what to do?

Would anyone in your company be able to help?

One of your employees is stricken. Breathing and heartbeat have stopped. Does anyone know what to do until help arrives?

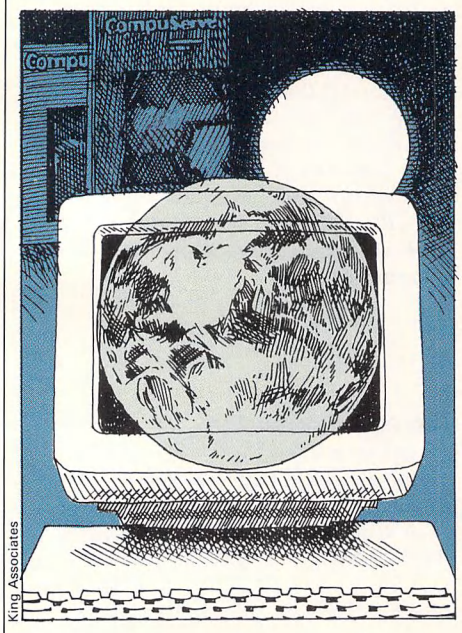
The American Red Cross can train your employees in CPR—Cardiopulmonary Resuscitation, a first aid method that sustains life.

It's just one of the ways the Red Cross helps you keep your company healthy and safe.

Contact your local Red Cross Chapter and ask about CPR training. That way, when disaster strikes, you can all breathe a little easier.

American Red Cross

Ad Council



King Associates

New Microprocessor Packs in the Power

As you may have heard, Intel's 80386 microprocessor packs a lot of power. In fact, in its protected mode, the chip can take advantage of 64 terabytes of virtual memory per task.

That's a lot of storage. And the term "terabyte" is something new for most of us. So let's put it all in human terms:

- A terabyte is 1,000,000,000,000 (one million million) bytes.
- If a byte could be transformed into a dollar bill, you could pack about 63.5 megabytes into a typical 50-foot-long boxcar. A train carrying 1 terabyte would have 15,742 cars and would be 167 miles long.
- If a byte represented a second of time, a terabyte would be 31,700 years long, or roughly the span of time human beings have been in existence.
- If you converted a byte into a floppy disk sleeve weighing about 1 gram, 1 terabyte's worth of sleeves would weigh about 1 million metric tons (2.2 billion pounds).
- If bytes could be transformed into $100 bills, and you were handed one bill per second, it would take you 317 years to collect a terabyte's worth of loot.
- Finally, if you turned bytes into copies of the CompuServe Information Service Users Guide, and placed them end-to-end, the trail would extend from the Earth past the sun.

Global Network Links Translators

It's a tough world out there, and finding a better way to compete is a little like building a better mousetrap. It would appear, however, that Lee Chadeayne may have found a way to compete with the big boys and win.

Besides being a professor of German at Northeastern University, Chadeayne is president of Global Translations, an international business that translates scientific and technical documents. Armed with a Morrow MD-11 microcomputer, a database of 350 translators worldwide and a lot entrepreneurial spirit, Chadeayne is successfully pitting his company against large translating agencies.

Chadeayne attributes his success to online technology. Because more European companies require document translation than do American companies, he advertises actively on the European GeoNet electronic-mail service.

Organizations abroad send Chadeayne documents electronically, usually by TYMNET satellite. He checks his database of translators for the best person for the job and sends the document via CompuServe's EasyPlex to the selected translator.

Amazingly, the speed—especially when compared to the time it would take if traditional mailing methods were used—is not the most important aspect of electronic transmission to Chadeayne.

Gerry Baskin

Timely translations: *Chadeayne*

"Using electronic media is to our advantage because we can find the best translator for the job no matter where he lives, and we have an interactive capability that is essential for better communication between the client and the translator," he explains.

Chadeayne relates a business deal in which electronic transmission was crucial. Four days before Christmas in 1985, a translating agency in Boston called asking if he wanted a job it couldn't handle. Swedish documents from a lawsuit had to be translated before Christmas, and no agency in Boston would touch the documents with that time frame. Even the Swedish Consulate wouldn't help.

Chadeayne made a phone call to Sweden and located a translator who was also an attorney and willing to work on the Saturday before Christmas. The job was downloaded from Sweden and delivered to the client within 48 hours.

"There is an international fraternity online. I can do things the other agencies can't do just because I am online," he says.

For more information, contact Global Translations via EasyPlex at 70247,23 or by writing P.O. Box 164, Acton, MA 01720.

—Cathryn Conroy

Silicon Valley Store Sells PCs by the Piece

Out in Silicon Valley, there is a store that sells PCs by the piece.

Rx Computers is a store dedicated to computer kit builders. Located in Cupertino's Vallco Fashion Park, the store sells motherboards, power supplies, disk drives, cabinets and all of the other paraphernalia that goes into the making of an IBM PC-compatible system. The store is the brainchild of Matt Zuckerman—better known to PC enthusiasts as "Dr. Zucker"—president of ATD Inc., a Sunnyvale, Calif., manufacturer of PC-compatible add-on boards.

"Even a person without knowledge of computers can put together a system in about three hours," claims Zuckerman. "It is not as difficult as it may sound."

Rx Computers prices its compatible-much lower than competing stores, and has a pricing structure comparable to many mail-order outlets, according to Zuckerman. Kit builders, he says, stand to save up to 33 percent of the cost of a prebuilt PC-compatible system. For instance, the store sells a 640K IBM PC-XT-compatible system for $673, about 33 percent cheaper than a store-bought assembled system. Rx Computer also provides customers with assembly help, service and a two-year warranty.

More information is available from ATD Inc., 235 Santa Ana Court, Sunnyvale, Calif. 94086; 408/720-1938.

—John Edwards

Tackling high-tech fears: *Spurgin*

Guide Helps Educators Compare Notes Online

In much the same style that their business counterparts network, teachers are discovering that one of the most valuable resources they have is each other. Thanks to the computer, a new world has opened up for educators who want to compare notes.

It is not, however, as easy as it sounds. If teachers can overcome the financial considerations, which can be rather restrictive when it comes to tight school budgets, they may hit the stumbling block of technical inexpertise.

Enter Judy Barrett Spurgin and her *Educator's Guide to Networking: Using Computers*. Spurgin, who lives in Austin, Texas, wrote this guide so teachers could learn the ABCs of computer communications. Designed specifically for educators, the manual aims to dispel technological fears.

A variety of networking topics are covered, including bulletin board systems, conferencing, electronic mail and information gathering techniques. Instructions on how to use CompuServe and several other commercial databases also are included.

Spurgin is a believer in the power of networking, noting that it can increase professional effectiveness while enriching your personal life.

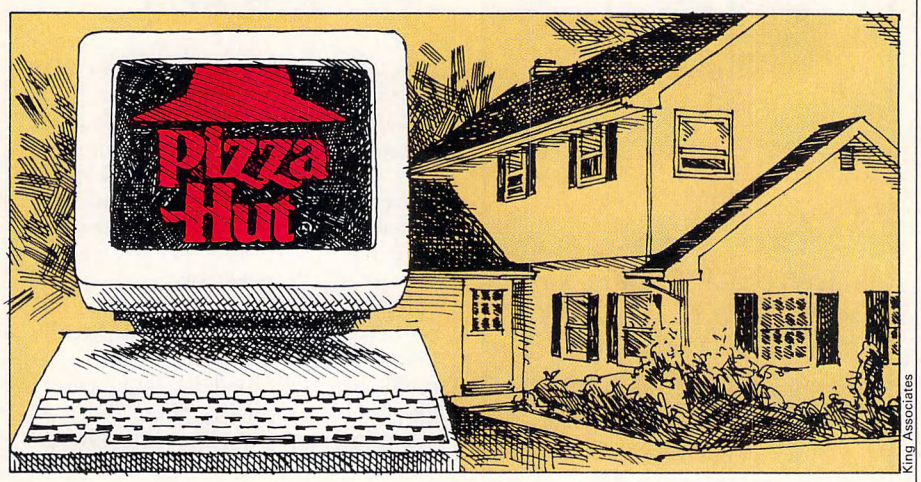
"In many cases, teachers, students and administrators work within very narrow confines. Just as they need to know what is going on in their school or district, it is important to have interaction with teachers and administrators in other geographical locations," says Spurgin. "Computer networking is an easy way to do that. It doesn't involve traveling or searching out people, and it doesn't take a lot of time."

She is especially excited about the potential computer networking holds for students, since they have little opportunity to meet and talk with students from other areas. This kind of networking is popular with a number of schools participating in CompuServe's Students' Forum (GO STUFO). Monthly real-time conferences are held during the school day with experts in a variety of fields. Students have an opportunity to discuss issues with national leaders while exchanging ideas with one another.

Educator's Guide to Networking: Using Computers sells for $7.50 and is available from the publisher, Southwest Educational Development Laboratory, 211 E. 7th St., Austin, TX 78701; 512/476-6861. A companion guide titled *Educator's Guide to Computer Conferencing* also is available.

—Cathryn Conroy

Pizza Hut Computerizes Home Delivery Service



King Associates

Whether you're a pizza eater or not, Pizza Hut may soon have your address in its computers. The fast-food chain recently turned to computerization in an effort to efficiently institute home pizza delivery operations in the 19 cities it serves.

A caller wishing to place an order is first asked to provide a phone number. The caller may be startled when the Pizza Hut representative checks the computer and verifies, "Is this Susan Matthews at 9384 Main Street?"

If Susan has previously ordered from Pizza Hut, the order-taker will probably offer additional information, such as, "Your house is yellow with green shutters and is located at the top of the hill. Last time you ordered a large pepperoni and green-pepper pizza. Would you like the same thing this time?"

Pizza Hut began its computerized delivery last summer to efficiently expand its market share. The system is gradually being phased in to include telephone listings from all Pizza Hut service areas.

Calls are funneled through a central order-taking office in each city. That office—equipped with approximately 50 CRT units and a mainframe computer—then forwards orders to several satellite bake shops, strictly dedicated to serving delivery customers in their areas. Drivers leave the bake shops with detailed delivery directions printed in the proper order.

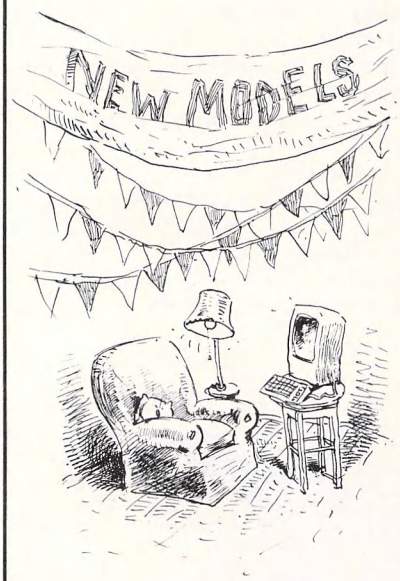
"There is efficiency from the fact that you have only one phone number for the consumer to remember," says Mike Jenkins, corporate public relations manager for Pizza Hut. "If they ordered in the past, it will come up on the screens and we can shorten an order time by half." Customers repeat their orders about 70 percent of the time.

As an added benefit, the information in Pizza Hut computers helps to identify customers for marketing purposes.

Further details are available from Pizza Hut's Jenkins, 316/681-9000.

—Kathy Baird

Turn the spare room into a showroom.



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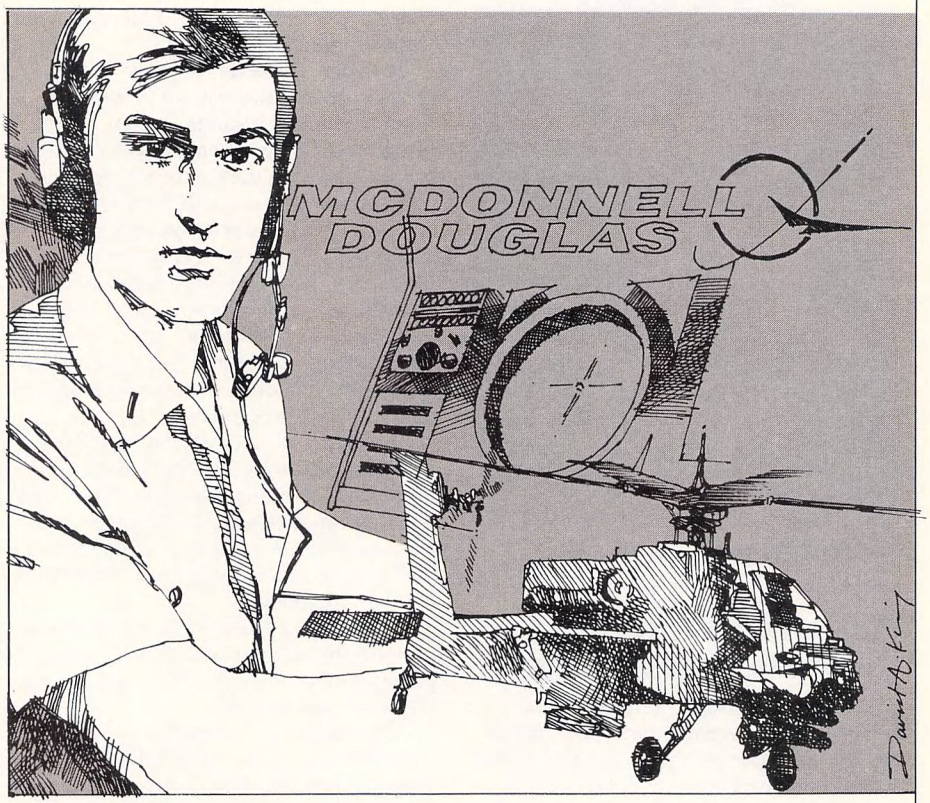

AI System Keeps Helicopters Aloft

We're rapidly approaching an era in which computers are going to do all of the thinking. No kidding.

For instance, when the McDonnell Douglas Helicopter Co. unveiled its new AH-64 Apache attack helicopters earlier this year, the firm also introduced an artificial-intelligence system designed to help keep them flying.

"Artificial intelligence is a computer-based methodology that models behaviors usually associated with human intellect. These include problem-solving, understanding language and reasoning," notes Bill George, supervisor of artificial intelligence projects for the Mesa, Ariz., based company.

"The system takes out the guesswork by reviewing all of the historical data on the problem described by the crew chief. It can accurately predict the cause of the problem and the individual component responsible," says George.

"The sophistication of the Apache requires an equally sophisticated approach to maintenance," says Richard Maby, program manager for the aircraft's intelligent fault locator project. "This and the limited availability of personnel to fix downed aircraft required a new approach too aircraft fault detection and location," he notes.

Maby says the software, although powerful, is easy to use. "The crew chief simply enters the nature of the problem into a computer, and the computer takes him through a series of steps that quickly leads to the identification of the problem," he says. The computer is mounted inside a specially designed van, allowing the software to service aircraft on a flight line or in the field.

A special feature of the system, says Maby, is a graphics display of the AH-64 fuel system that highlights failed components on the computer screen. The technician sees a clear picture of the probable fault, making component repair or replacement quicker and easier. Completed repair work automatically becomes part of the aircraft's permanent maintenance record, information that can be used to predict trends in component failure.

It all sounds good. But we remember that HAL, the malevolent computer in *2001*, did the same sort of work, and you know the can of worms that computer opened.

More information is available from the McDonnell Douglas Helicopter Co., 602/891-3000.

—John Edwards

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That's right, whether you're there or not, PC COMplete will wake up, dial CompuServe and send mail from its OUT basket. It will also pick up mail, put it in your PC COMplete IN basket and log off, automatically.

Finally, you can take advantage of lower off-hour rates without being tied to your PC. After the mail session, PC COMplete will be waiting for you with a full IN basket and empty OUT basket.

Mail Management.

Now, off-line mail management features go to work for you. As you start scanning your IN basket you may want to reply to a message. No problem. Just press the "Reply" function key and your message will be addressed automatically to the originator, with subject already filled in. Just type your reply with the easy-to-use, full screen **text editor.**

You can also file, copy, discard or print messages...just like dealing with paper. And transfer files of any type (1-2-3, dBase, etc.), just as easily as messages, using the exclusive **Attach File** feature.

PC COMplete features a pop-up **Address Book** to address messages automatically and supports send options, such as Priority, Confidential and Receipt.

Total Communications.

Features like this would be enough for most software packages, but that's only half the story for PC COMplete.

Speed up and simplify your use of CompuServe, and any other service for that matter, with comprehensive, general purpose communications features.

Automatically log-on to any system, as a standard ASCII or **VT100** terminal. Create function key macros to automate any interaction...checking stock prices, transferring files using **X-modem**, whatever. All this is so simple using the **learn** feature that creates macros for you.

Built-in **DOS functions** mean you won't have to exit PC COMplete to get a file directory and to view, print, rename, delete or even edit a file.

Confirmed Excellence.

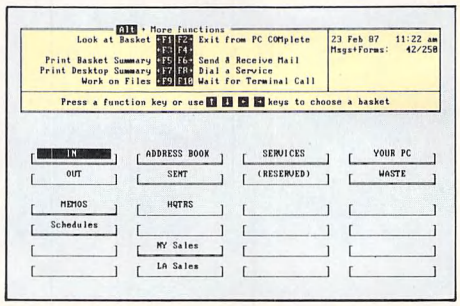
PC COMplete's "Macintosh-like" interface brings all these features to you in a package that's so **easy-to-use** it has been adopted by other mail services, such as GE Quik-Comm, AT&T Mail and CSC Notice, and has earned rave reviews:

"...so well adapted to CompuServe, that you will soon forget how to access it manually." Harry Green, ONLINE TODAY.

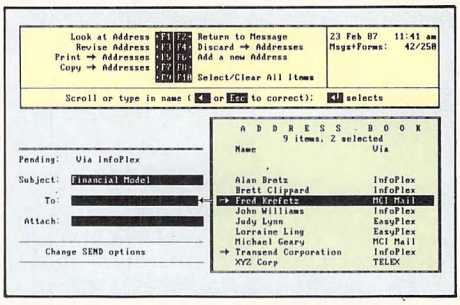
"...easy to use, but sophisticated...a first time user can have it executing its first electronic mail session in half an hour..." DATAPRO RESEARCH CORP.

"I have tried many programs...none of them is as easy to use as PC COMplete." Michael Butler, BANK OF AMERICA.

"...one of the flashiest user interfaces we've seen for the IBM PC." Markoff & Freiberger, SAN JOSE MERCURY NEWS.



The main Desktop screen displays baskets for exchanging and sorting your E-mail.


Look at Address F1 F2 Return to Message
Revise Address F3 F4 Discard → Addresses
Print → Addresses F5 F6 Add a new Address
Copy → Addresses F7 F8
F9 F10 Select/Clear All Items
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Brett Clippard InfoPlex
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Add $5 shipping/handling plus 6.5% sales tax for California residents.

Hardware Requirements: IBM PC, XT, AT or compatible. 256K memory. DOS 2.0+

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GO EBB or circle 6 on the Reader Service Form.

FORUMS

Online Meeting Places Generate Discussions

by Charles Bowen

Discussion forums were born of electronic democracy. They developed—and continue to evolve—through the interests and ideas of the subscribers themselves.

On CompuServe, the first forum—initially called a SIG (special interest group)—came into being in late 1979, the brainchild of a group of users who wanted an online meeting place. Success of that project prompted CompuServe to quickly establish other forums.

In the first few years, almost all of the forums specialized in computer-related topics—specific hardware, software and programming—because most early subscribers were computer hobbyists and industry professionals. Through the years, though, the interests of subscribers have broadened, and so have their forums. Today's forums are many things: cozy conversation nooks, firing lines where the day's issues stand trial and daily growing resources of hard facts.

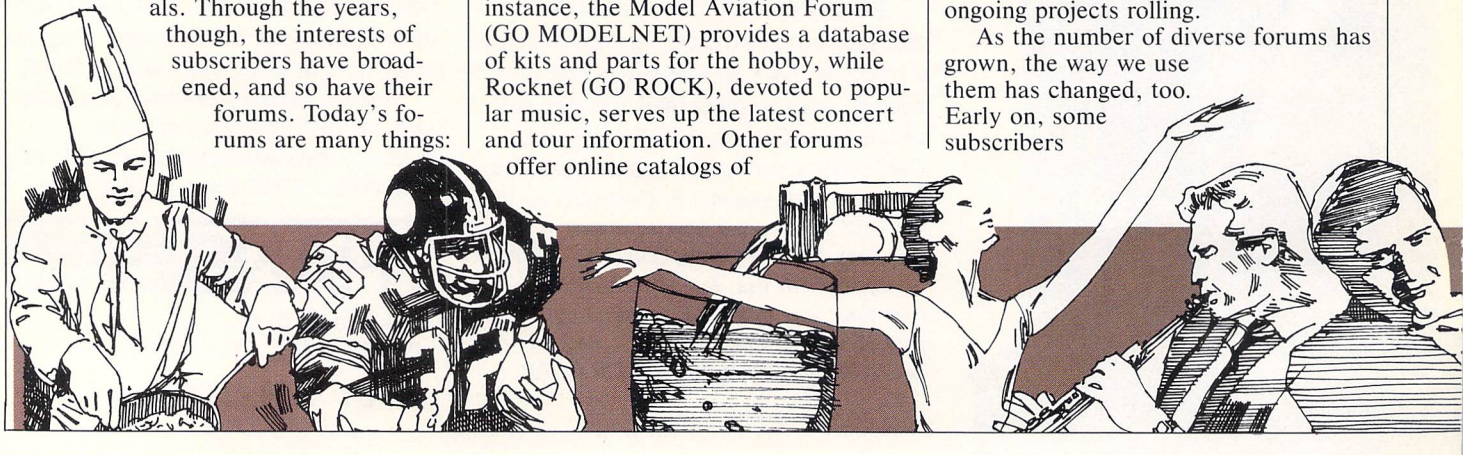
Computer-specific forums still are the most popular—after all, computers are what we all have in common—but the fastest-growing forums are the general-interest ones, covering subjects from photography and sailing to books, wine and music. Add to that a healthy number that serve professionals, such as doctors, lawyers, journalists and broadcasters.

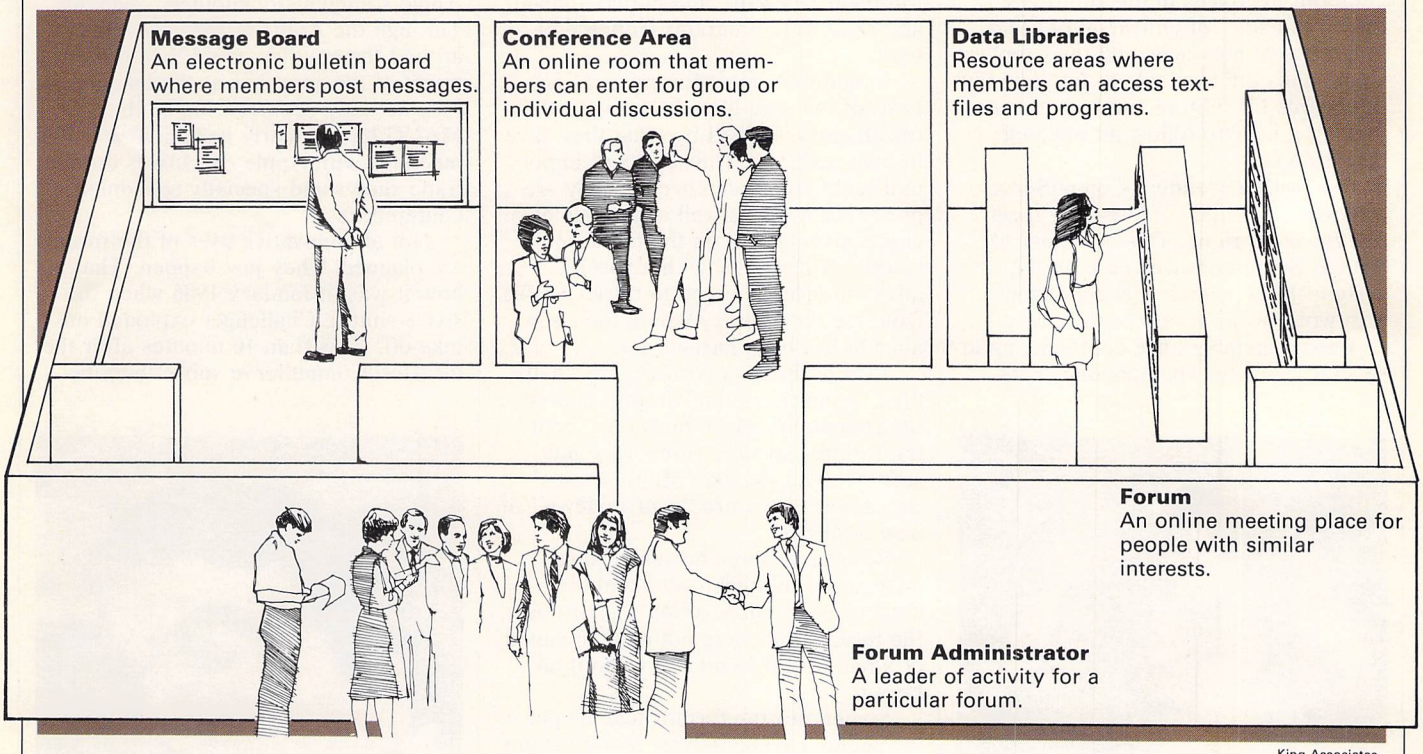
"Part of the reason for this trend," says Sharon Baker, CompuServe forum product support manager, "is that the general-interest forums often provide information that is unavailable, or at least hard to obtain, elsewhere." For instance, the Model Aviation Forum (GO MODELNET) provides a database of kits and parts for the hobby, while Rocknet (GO ROCK), devoted to popular music, serves up the latest concert and tour information. Other forums offer online catalogs of new equipment, job opportunities and tips, or a compendium of answers to frequently asked questions in a specific area.

All of this specific information comes from diverse sources. While print and broadcast services are essentially one-way communication, forums let their members get facts from each other as well as from the forum's administrator or sysop (that is, "system operator").

Most successful forums, says Baker, "have a key group of special or senior users who have a sense of ownership in the forum." These people are regulars, many of them experts in the forum's subjects, who help the administrators answer questions and keep the forum's ongoing projects rolling.

As the number of diverse forums has grown, the way we use them has changed, too. Early on, some subscribers




Message Board
An electronic bulletin board where members post messages.
Conference Area
An online room that members can enter for group or individual discussions.
Data Libraries
Resource areas where members can access text-files and programs.
Forum
An online meeting place for people with similar interests.
Forum Administrator
A leader of activity for a particular forum.

King Associates

became electronic homebodies, getting wrapped up in the events of one or two forums exclusively, as if holding down their ends of favorite neighborhood bars. Others became "SIG-hoppers" on a regular circuit to sample a number of forums, never taking root anywhere.

Savvy users today probably are a little of both. They find forums that they call *home*, visiting them for a few minutes every day, diving into the give-and-take of the latest discussions and projects. But they also keep in mind forums that can be called upon for special occasions.

"For example, those who are not tropical fish hobbyists probably would not go to the Aquaria and Fish Forum (GO FISHNET) on a regular basis," says Baker. "However, they could visit the Forum when needed. For instance, they may want to find out why their goldfish aren't eating." In other words, modern users tend to think of the forums as "systems" of information, some to be used daily, others to be visited when the need arises.

Meanwhile, CompuServe itself also is on this two-way street of information. Interaction with subscribers not only has prompted an increase in the number of forum subjects, but also has kept the forum software itself regularly improving. CompuServe has set up a flexible procedure for receiving suggestions for enhancements from a myriad of sources—subscribers, forum administrators and CompuServe employees.

"The emphasis now is on input from users," Baker says. "It is satisfying to be able to talk with the people who actually use the products every day."

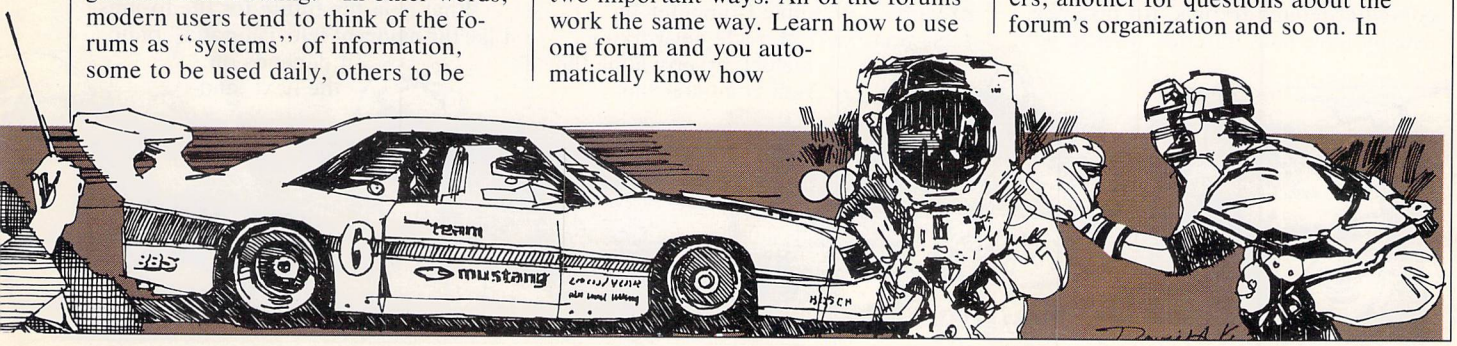
A new generation of the forum software, scheduled to go online this fall, is the result of nearly three years of such input, she said.

But, in a sense, no matter how forums evolve, they stay the same, in two important ways: All of the forums work the same way. Learn how to use one forum and you automatically know how to use all of them. Second, while specific commands in later versions of the forum software can change, the broad concepts behind the commands seldom do. Once you've learned how forums are organized, it is easy to learn newer, enhanced commands that let you use those concepts faster and more efficiently.

All forums are divided into three distinct parts:

- The message boards. At the heart of each forum is the center for messages from the subscribers and administrators. These can be simple person-to-person notes or, more often, part of a general discussion on a topic someone has raised.

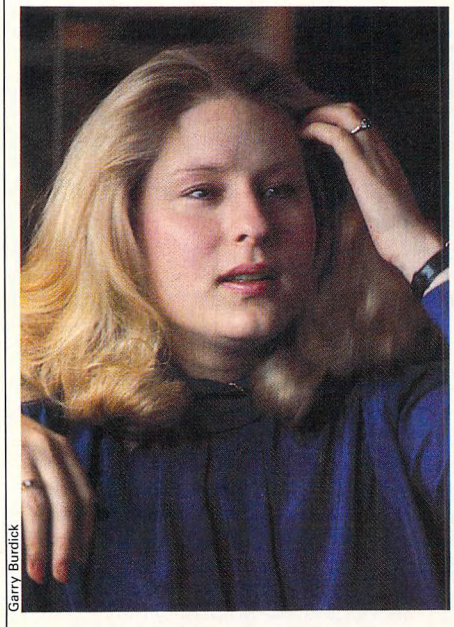
Most message boards are divided into a number of broad "subtopics"—one area, perhaps, for discussion of software, another for specific computers, another for questions about the forum's organization and so on. In



addition, messages in the subtopics form "threads" of conversation, that is, groups of messages and their replies. Commands are available to let you read the boards by subtopic and by threads, making it easy to follow an ongoing discussion.

- The conference area. CompuServe provides real-time conferencing facilities for the forums. This is similar to the CB Simulator elsewhere on the system. In fact, most CB commands also work in the forum conferences.

Forum members use conferencing in several ways: for spontaneous chats



Garry Burdick

Reporting from trade shows: *Gordon*

(two members simply agree on a time to meet to talk electronically), informal gabfests (standing invitations for you to come and meet some of the forum's members), and formal guest conferences (an expert or newsmaker "speaks" to the group and then fields questions).

- The data libraries. Here's where the forum keeps its treasures. The computer-related forums, for instance, usually have data libraries stocked with top-flight freeware, and public-domain and shareware programs from members.

In addition, most forums use sections of the data libraries to write their own history, shaped by what they save in their archives. Transcripts of important real-time conferences usually are preserved here, as well as threads of past conversations on the message boards. A new user with a specific question often is urged to retrieve a file from the data library where the issue already has been hashed out.

Also in the data libraries are "help files" from the administrator, answering commonly asked questions about the forums, specific computers and software and the like. Many forums' data libraries feature "user reviews" of new products.

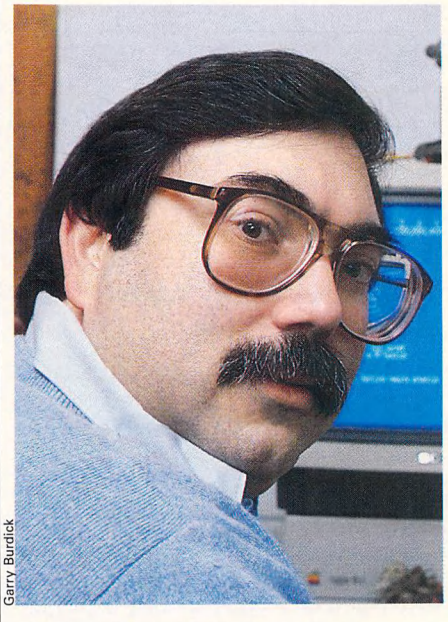
With these three powerful tools, imaginative administrators and their associates are discovering ways to use the forums that were not even dreamed of a half-dozen years ago when it all began.

Sometimes the forums take us places we couldn't go ourselves. Many forums use data libraries and message boards to provide up-to-the-minute reports on events. Earlier this year, Dawn Gordon, administrator of the Consumer Electronics Forum (GO CEFORUM), uploaded daily reports from the Winter Consumer Electronics Show in Las Vegas for her members. And those with questions about specific products or companies exhibiting there could leave messages on the board for her and she then sought answers, becoming a personal correspondent for the members.

Now, other forums also routinely give members on-the-scene reports from trade shows, but with a special difference from the general press: they emphasize the computers and software of interest to their specific members.

Meanwhile, Neil Shapiro, chief administrator of the Micronetworked Apple Users Groups (GO MAUG), has explored new territory in real-time conferencing by establishing links with executives of Apple Computer Inc. Last year, MAUG made networking history by providing the first computer link to Apple's annual stockholders' meeting. Through the Apple forums, people around the country could read a transcript of the speeches at the meeting as they actually occurred. Since then, MAUG has regularly held similar online meetings with Apple executives during trade shows and specially scheduled conferences.

Not all innovative uses of the forums are planned. They just happen. That is how it was in January 1986 when the space shuttle Challenger exploded on take-off. Less than 10 minutes after the disaster, CompuServe subscribers be-

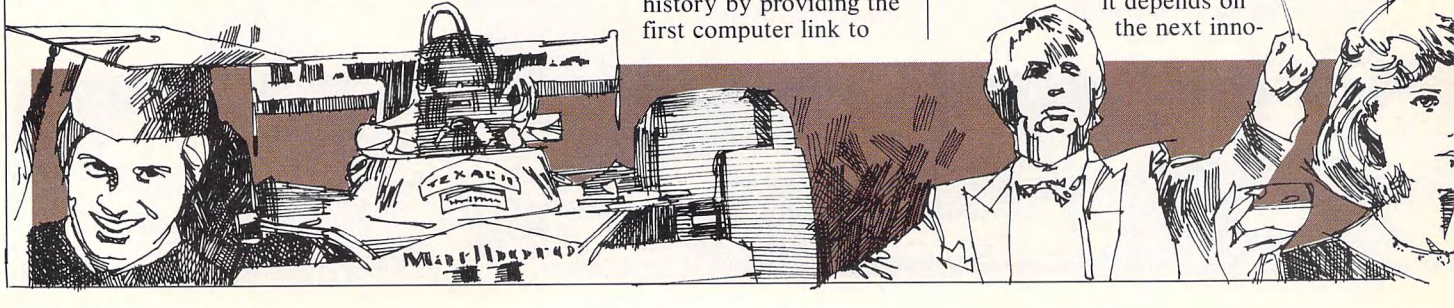


Garry Burdick

Talking with Apple leaders: *Shapiro*

gan gathering online in Dick DeLoach's Space Forum (GO SPACEFORUM). The conference, which continued nonstop with members coming and going for more than 18 hours, made the forum suddenly a different kind of place—one for sharing grief and consolation. In other words, a medium that usually disseminates information abruptly stopped to listen.

What is in the future for the forums? Like the media of television and radio, it depends on the next inno-



vative idea. Education seems to be high on the agenda. Earlier this year, the Borland International forums launched an online seminar for Turbo Pascal programmers. That borrows an idea started several years ago by Brad Paulsen's Programmers Forum, which hosted numerous long-term electronic workshops in computing. The Gamers Forum regularly conducts online bridge classes and chess talks and tournaments.

Graphics are a hot item in some circles. Larry Woods' Online Picture Support Forum (GO PICS), for example, is experimenting with bringing together computer communications and art.

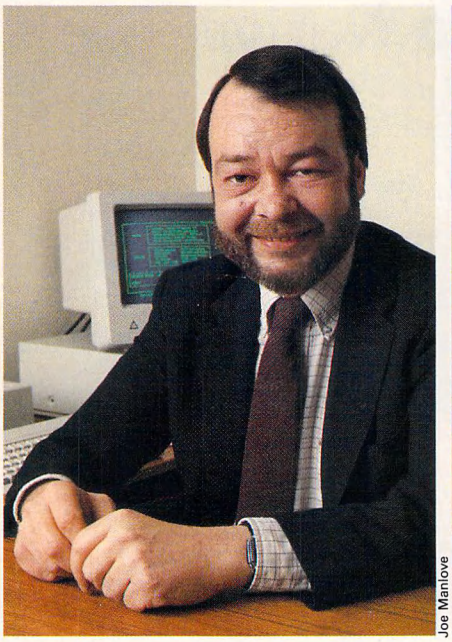
Perhaps the most exciting new thing is *community programming* and the story of AutoSig.

A few years ago, Howard Benner of Wilmington, Del., bought a TRS-80 Model 100 (GO M100SIG) and became active in CompuServe's Model 100 Forum. Since that lap portable, with its built-in modem and communications program, seemed born for traveling the electronic backroads, Benner and other forum members were anxious to push it to the limits. Benner knew it was a perfect vehicle for an idea he had for saving money on his CompuServe bills.

Benner wrote a program called SUPER.SIG, which let him do much of the reading and writing of forum messages offline. SUPER.SIG lets the Model 100 automatically log onto CompuServe and handle a number of preselected chores, such as reading and posting messages. It could save files in the machine's memory for more leisurely (and unbilled) reading offline.

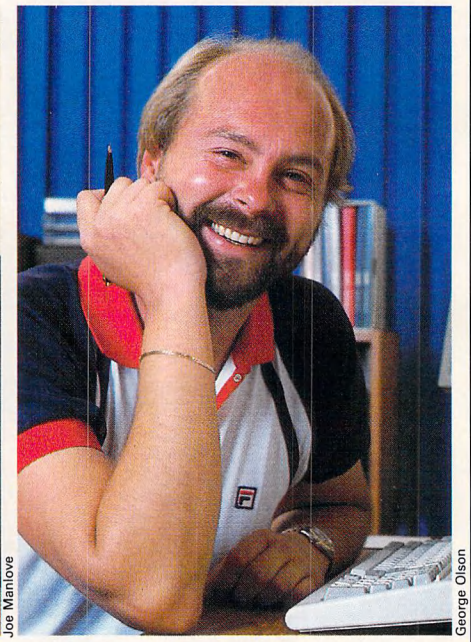
When Benner, who is now an assistant administrator in CompuServe's Public Relations and Marketing Forum (GO PRSIG), placed his creation in the forum's data library, it was an immediate hit. New versions followed, incorporating refinements suggested by SUPER.SIG's enthusiastic followers.

Quickly, word of the project spread to neighboring forums where discussions started about how they could create similar programs for other computer systems. Before long, a new incarnation of the program—now renamed "AutoSig"—was born in the IBM forums. Three more programmers joined Benner for the project: Vernon Buerg, Frank Lipschutz and Don Watkins. Now AutoSig has hundreds of dedicated users on the system and has even spawned a special "projects group" in the forum.



Joe Manlove

Finding electronic backroads: *Benner*



George Olson

Trying community programming: *Watkins*

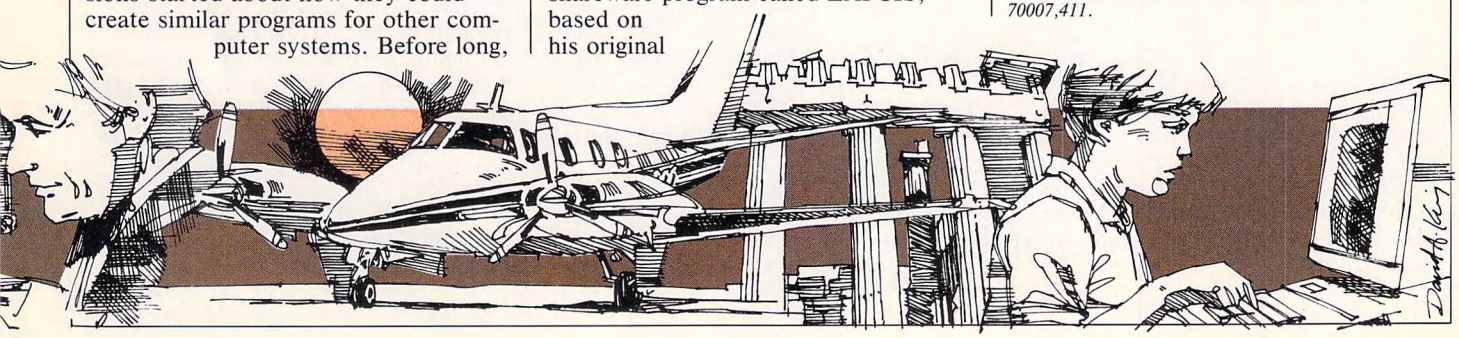
As Watkins noted in the introduction to a new version of the program, "It was an experiment in a group project where we didn't have any way to communicate except through CompuServe. There were times when we got out of sync, but even with our diverse geographical locations, it proved workable."

The spirit of SUPER.SIG is very much alive. In the IBM Communications Forum (GO IBMCOM), the administrators have established a reserved area (Data Library 1) just for AutoSig and its related utilities, which are available to anyone for the downloading. Meanwhile, Benner has created a new shareware program called ZAPCIS, based on his original idea, which also is available in the Communications Forum.

The concept continues to spread. Not long ago the Apple forums got into the act. For Apple II systems, John Tierney has written a program called "MAUG Message Manager," which also allows easy offline message-writing and replying. "MMM," as it is known locally, is available in Data Library 2 of the Apple II/III (GO APPLE2) forum. Administrator Shapiro says at least one similar program is in the works on the Macintosh forums.

To some, the "community hack," as Watkins calls this kind of group programming, is a big part of the future, because it is a natural continuation of the evolution. Now the forums are not merely places to exchange information. They are, as well, becoming workshops where users customize their own tools to make the exchange even easier.

Charles Bowen, a contributing editor of Online Today, *is co-author of* How to Get the Most Out of CompuServe *and* CompuServe for IBM Power Users. *His CompuServe User ID number is 70007,411.*

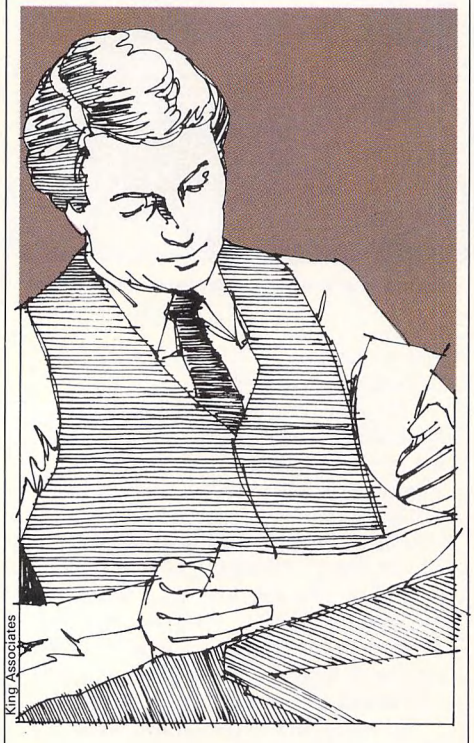


Navigate Like a Native

How to Find Your Way Through the Forums

Staying abreast of what's going in the various forums on CompuServe is easier today than ever before.

You will find online reports on upcoming events, on highlights of new entries in the data libraries and those



King Associates

that list regular real-time conferences. In addition, if you know where to look, the forums can provide a wealth of information about themselves.

Finding forums

CompuServe now can produce a personalized index of forums dealing with your interests. The key to such an index is the FIND command.

At any prompt on the system, you can type FIND followed by a keyword and CompuServe will create a menu of services, including forums, that deal with that subject. Suppose you were looking for a forum devoted to records and concerts. You could enter FIND MUSIC for a customized guide. You even can type FIND FORUMS to get a complete list of all active forums on the system.

Staying up-to-date

Once you've spotted forums you want to visit regularly or occasionally, there are ways to save even more time online by quickly getting to the heart of the latest activities there.

The best way is to read the administrators' bulletins. When you enter a forum, you're sometimes greeted by a bulletin if the administrators have an announcement. You also can access the bulletin files from the Function prompt or menu by typing a B. This produces a menu of bulletins, including general membership information and the "sysop roster" (handy for new members), local conference schedules and regular bulletins.

One item—"Short Bulletin"—usually contains the latest news from the administrator. Often he or she will call your attention to important discussions taking place on the boards, new features in the data libraries and upcoming conferences.

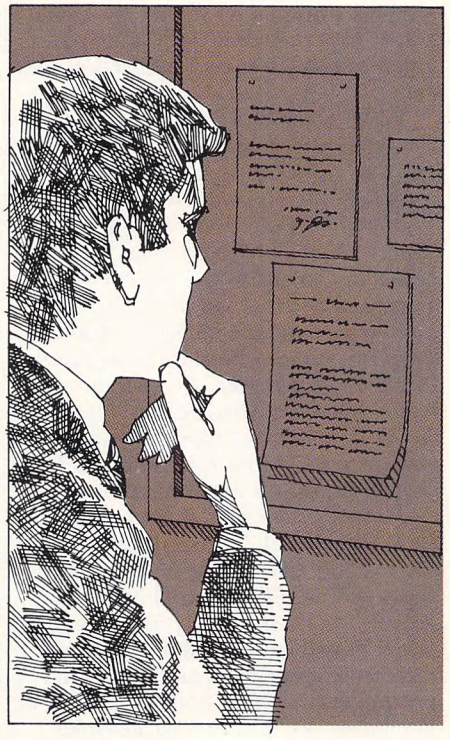
A forum also can give you a rundown on the latest enhancements to its software. At the function menu or prompt, type NEW for the latest bulletin on software changes and commands.

And speaking of commands, every forum can provide a complete list of all commands. To retrieve this list, enter I (for "Instructions") at the Function prompt.

Using the message board

Here are some tips for using a forum's message boards:

- Use the new BROwse command. BRO allows you to scan "threads" of conversation on the boards. If you enter BRO at the Function prompt or menu, you'll be asked for the starting message number, then the system will display the subject, subtopic and number of replies in each "thread." You'll then be able to read the thread or continue browsing. This is especially useful if you've been absent from your favorite forum for a while and want to get an update on what happened while you were away.
- Read the new messages. "New," from the forum's point-of-view, means all messages posted since your last visit. If you'd like to see them, enter RN (Read New) at the Function prompt.
- Read the new threads. The command RT means "Read Thread." Entering it at the Function prompt will cause the system to show you messages grouped in terms of replies, like BRO. Also you can link this command with a semicolon and N (for "New")—that is, RT;N—to see only the threads that have been posted since your last visit. (You also can enter simply RTN.)



- Read messages posted to "All." Many of the general interest discussions begin with a message left for the entire membership. You can see all these messages by entering the "Read Selectively" (RS) command at the Function prompt. You'll then be prompted for the field to search ("T" for "To: ") and the string ("All"). And you can link this sequence as well—RS;T;ALL. The system then will prompt for the starting message number and begin displaying the messages.
- Set permanent subtopic defaults. The message board can be divided into as many as 18 subtopics, each devoted to a subject. To see a list of subjects, enter SN ("Subtopic Names") at the Function prompt. If you find you are usually interested in a selection of a forum's subtopics, use the forum's

User Options menu (by entering OP at the Function prompt or menu) and notice that the system will allow you to set multiple "default subtopics." In other words, the subtopics listed in that area will be the ones that are routinely shown to you on a visit. To set your default subtopics at the User Options menu, type SU and you will be prompted for the selection set. Setting your defaults does not, incidentally, preclude you from using the SS command to occasionally view other subtopics not listed in your defaults.

- Use the Set Subtopics option to focus your reading (for that session only). If you decide that you want to read the messages on only one subtopic, you can enter SS ("Set Subtopic") followed by the subtopic number. For instance, after entering SS2, a command to RT;N would display only the new thread on Subtopic 2. Some subscribers like to read the entire board by subtopics, first setting it to Subtopic 1 and reading new messages, then enter SS2 and reading new, etc. To return the setting to all subtopics, enter SS;ALL.

Using the data libraries

Next to message boards, the most popular part of many forums is the data libraries. Stored here are the public-domain and shareware programs, transcripts of important discussions from the boards and conferences, users' reviews, help files and more. Here are suggestions for the data libraries:

- Learn how the library is subdivided in your chosen forums. Like message boards, data libraries usually are partitioned into subtopics. To see a list of the library names, enter LN at the

Function prompt. Then to access a particular library, enter DL ("Data Library") followed by the subtopic number, such as DL3. Once in the data library, you can get a general description of the contents by typing DES at the Data Library prompt. Also, you can browse the contents by entering BRO (for "Browse"). The system will prompt you for two pieces of optional information—keywords and "age." If you wanted to see all files submitted in the past two days, you could enter the digit 2 at the "Age" prompt. Or, if you'd like to search for BASIC programs in a subtopic, you could enter the word BASIC after the "Key:" prompt. By pressing the Return key at both of these prompts, you can browse all files in that data library.

- Look for index files. Some administrators have begun creating *summary* or description files that catalog other entries in that subtopic. These files usually are ASCII, meaning you can read them online or pick them up to read offline in your word processor. They usually have a special extension (such as ".SUM" or ".DES") that makes them easy to locate. Reading one of these index files can save you a lot of searching time, so check with the administrator to see if your favorite forums support them.
- Search for locally important utility programs. These days, many programs in data libraries have been compressed and "packed" (several files stored in a single unit) to save space for the forum and downloading time for users. This means that you'll need to have a copy of the compression utility to use offline to unpack and "unsqueeze" programs you download. Check the administrators' help files and bulletins for the names of any such utilities you'll need. Most are either self-documenting programs or are accompanied by brief instruction files.

Groups Collaborate on Forum Changes

When the software that runs the forums is enhanced, groups both inside and outside of CompuServe deserve the credit. Inside the company, primarily two groups are involved: Product Development, which actually does the developmental programming, and Forum Product Support, which manages the existing product.

Several groups of users, forum administrators and CompuServe associates work closely to critique the existing programs, make suggestions for additional features and actually test new software, according to Sharon Baker, CompuServe forum support manager. Among those groups are:

- "Roundtables," made up of 10 to 12 forum administrators, who meet regularly in intensive two-day sessions at CompuServe's Columbus headquarters. The group includes forum administrators from the largest forums and representatives of the smaller ones.
- The CompuServe market research department's regular "Focus and Advisory Groups." These are panels made up of randomly selected new and experienced users who look at the system as a whole, including the forums.
- The Sysop Forum, a private area of the system where primary and assistant forum administrators meet to discuss common issues, including proposed changes to the software. Here the Forum Product Support staff members monitor comments and lead discussions.

After a list of software enhancements is proposed, representatives of Forum Product Support and Product Development determine which of the proposals will be implemented.

Once a new forum version has been written by Product Development, a "test" forum in a private area of the system is used for "alpha" testing by selected experienced forum administrators.

Before the new program is put into general use in all of the forums, it goes through two levels of "beta" testing: It is put up in the Sysop Forum, so all of the forum administrators can become familiar with it; then the new version is installed in selected CompuServe forums for previewing and testing before being implemented in all forums.

—CB

• Learn the local extensions. The three-letter extensions on CompuServe files are intended to tell you something about the information. Some are standard throughout the system: .BAS for a BASIC program, .TXT for text, .BIN for binary, etc. In addition, some forums have local conventions. For example, .THR or .THD may mean "thread" (that is, a transcript of an important message board conversation), .CNF for a conference transcript or .LBR for a compressed program. Often the administrator's bulletins and the descriptions on the individual data libraries will provide insight into some of the more obscure extensions. Knowing what the extensions stand for can speed up your browsing. If you know that .ARC is the local convention for a compressed "archive file," you'll know at a glance that you'll need to have the "archiving" utility on your disk to "uncompress" it after it is downloaded.

• Use a "wildcard" in browsing. You can use an asterisk (*) as a wildcard to look for files that have certain characteristics in their names, such as a specified extension. Suppose you were looking for BASIC programs in a subtopic and you knew that the forum recognized the standard .BAS for them. You could enter the BRO *.BAS at the prompt.

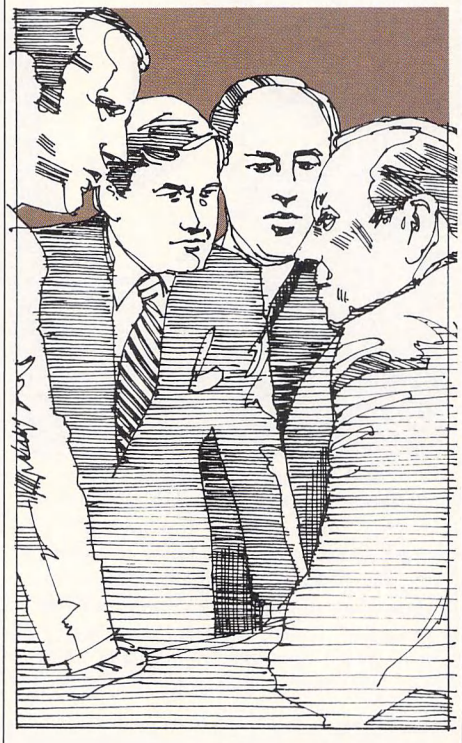
The wildcard command also can be used at the keyword prompt. For example, if you type *CES, the system will look for files with keywords ending in CES. If you type ACC*, you'll get keywords beginning with ACC. The command *CCE* will locate files with keywords that contain CCE.

Tips on real-time conferencing

The third part of forums—real-time conferences—is the easiest to learn, particularly if you're already familiar with the CB Simulator. The features are almost identical.

Some forums have several kinds of conferences, including informal gab-fests, not unlike the meetings of a users group or social club; and organized, scheduled conferences with guest speakers. The latter are usually more formal and you are wise to look into the local conventions before attending.

Usually at formal conferences, the administrators ask attendees not to try to all "talk" at the same time. Instead, they prefer that you indicate you have a question or comment for the guest—usually by transmitting a question mark—then sit quietly until you're called on by the discussion leader to transmit your question. The forum probably requests you use certain other codes—such as an elipsis (...) to indicate you have more to say and the letters "ga" (to mean, "go ahead—I've finished my comment/question"). Usually, you can find a list of these codes in the conference bulletin (type B at the Function prompt and choose the conference bulletin.)



Some administrators also have uploaded a longer help file about conferencing in the data library.

Other Tips for Using the Forums

• A way to stay on top of what's hot in the forums is to read the weekly "What's New" feature. It covers news throughout the system, but the bulk of the information deals with events in the forums—contests, important discussions, announcements of major upcoming conferences. Each Thursday a new edition is produced and a menu of eight to 12 items greets you at log-on. Later, if you want to reread it, enter GO NEW at any prompt.

• The electronic edition of *Online Today* (GO OLT) has several features for forum visitors. The Community News department (GO OLT-80) provides news from around the system, including activities in various forums. "Uploads" by David Peyton (GO OLT-3700) is a twice-monthly column of highlights on recent additions to various data libraries. Also available is an updated schedule of regular real-time forum conferences, most of them the popular "gab-fests" that let you get to know a forum's regulars. To reach it, enter GO OLT-120.

• Sometimes members of one forum can help you find another one. Forum administrators regularly chat with each other online and sometimes a query on a forum message board is answered with something like, "Sorry, we don't cover that sort of thing here, but you might check into so-and-so's forum by typing...."

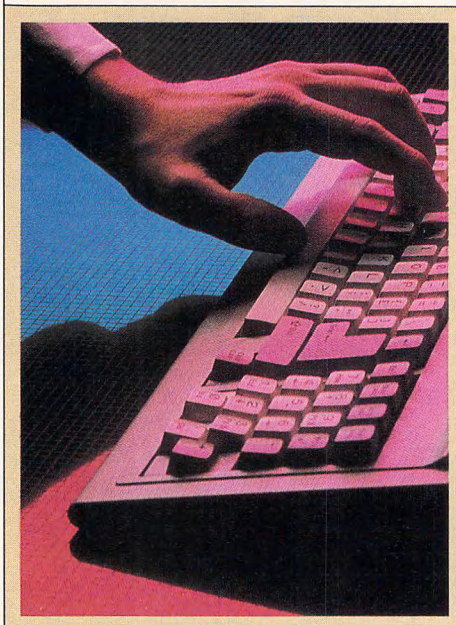
In case of emergency...

If you get lost in your electronic tours of the forums, help is just a keystroke or two away.

At the prompts and menus in the forums (as elsewhere in the system), you can enter "H" (or "HELP") to get an elaboration on what kind of information the system is looking for at the moment. Also, at the main Function menu or prompt, you can enter HELP to see a list of general help files available.

Finally, those new to exploring forums can find answers to frequently asked questions in the "Feedback" area of the system (GO FEEDBACK). Time spent in Feedback is not billed. If you don't find your question addressed in the "Questions and Answers" section, you can leave an electronic message and the Feedback staff will send a reply to your EasyPlex electronic mailbox.

—CB



Forum Enhancements Improve Navigation

The software that runs the forums is constantly evolving, and enhancements often start as suggestions from forum administrators and members.

Some of the most exciting recent changes have been in the forum data libraries. For instance, users are no longer billed for connect time when contributing files. About a year ago, a policy was adopted to credit members' accounts for the time spent in uploading files to data libraries.

In addition, the programmers have increased the maximum number of available subtopics in the data libraries (and forum message boards) from 11 to 18. This enables forum administrators to create more libraries for specific subjects.

In the same move, it was decided that the data library subtopics no longer need to have the same subjects as corresponding subtopics on the message board. In connection with that, a new command—"Library Names"—has been created. Now at the Function prompt or menu, you can type LN for a list of the subtopics in a forum's data libraries. (SN—"Subtopic Names"—performs the same function in listing the subtopics of the message board.)

Here are some other recent enhancements to the forum software:

- A "Browse" command has been created for easy scanning of the message board. Entered at the Function prompt, BRO will prompt you for the starting message number, then will display the subject, subtopic and number of replies to each subsequent message "thread." After each thread, you may read the message and its replies or continue browsing.
- You now can send EasyPlex electronic mail directly from a forum. Simply type the message on the board—either as an original message or as a reply to an existing message—then, at the "Leave action" prompt, instead of typing "S" to "store" it on the public board, type MA (for "Mail"). Note that for this option to work, a valid CompuServe User ID number must appear in the "To:" field of the message. The system then will inform you that the message is being sent to the user's EasyPlex mailbox.
- Another new command—"WHO"—will help you find information about other members of the forum. Supported at the Function prompt and many other prompts in the forum, the WHO command leads to a prompt for the member's User ID number. The system then displays the member's name and date and the time of his or her last visit.
- The old "V log" (or "interests" log) of the forums has been revised into a database called the "Member Directory," and you can reach it by typing MD at the Function prompt. The directory contains files that members have voluntarily submitted to list their interests. It provides options for you to search for other members' files and to add or revise your own record.
- Forum conference channels have been reorganized into rooms. Rooms 1 through 17 are accessible to all users having access to the corresponding subtopics on the message board. Rooms 18 and 19 are accessible to the public; Room 20 is accessible to users able to access Subtopic 0. Room 18 now is the default conference area rather than Room 30.
- Several new commands have been added to the conference capability, including /GO. In a conference, you may enter /GO followed by a CompuServe page (such as "/GO OLT"). You then will exit the conference area and be taken to the specified page of the system.

—CB

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Watkins' Network Links IBM Computer Users

Don Watkins, 35, administrator of the IBM forums (GO IBMNET) on CompuServe, is a transplanted Texan with a taste for California wines and a fanatical preoccupation with tennis. So how did he get involved with computers?

Watkins left Texas to attend college in southern California, where he majored in computer science, After graduation, he moved to the San Francisco Bay area and did large-company mainframe computing, primarily in the banking industry. Watkins chuckles when he recalls the first commercial computer he worked on: an IBM S360 Model 30. "That machine had a 64K memory and sold for hundreds of thousands of dollars," he says.

Microcomputers were fairly limited in capabilities, Watkins thought—that is, until the IBM PC was introduced. "I realized it had the potential to do a lot of things that micros could not do before. That's when I got involved with microcomputers," he says. Watkins' own collection of computers now includes an IBM PC, an AT, a PC Jr. and an Amiga. The IBM products are understandable, but an Amiga?

"I love the Amiga. It has so many fun graphics and sound features that the IBM does not have," he says. "It's not necessarily a machine that I would want to work with on a serious basis but it's a fine machine."

When Watkins does work with a computer, it's through the consulting firm that he owns, Madera Software Group. "I do mainframe and some micro consulting. Primarily what I do is validate or review internal feasibility studies and things of that nature where a third opinion is needed." Watkins says it is not unusual for a computer consultant to run up a tab that exceeds the purchase price of the hardware and the software.

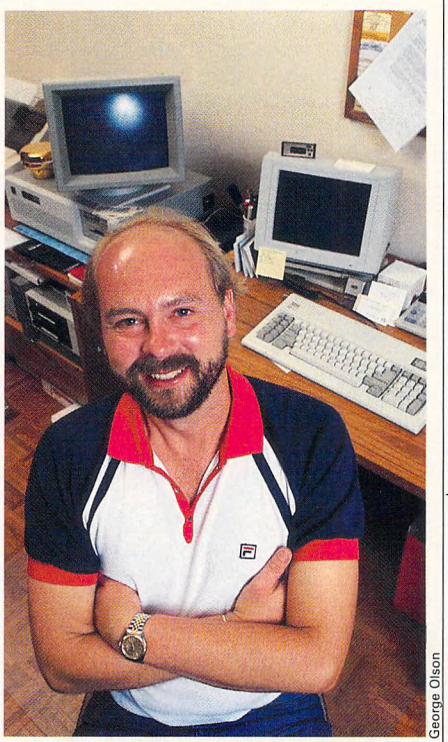
Watkins' involvement in the IBM forums started a few months after the original online group of IBM users began meeting on CompuServe. At the time, there was only one area for users of IBM equipment; the five current forums opened in 1986. Of the five forums Watkins says the IBM Software Forum tends to have the most philosophical discussions. "We explore topics such as 'Will shareware work?' and other software-related issues," says Watkins.

The IBM New Users Forum, on the other hand, has a limited scope of questions of interest to new IBM PC users. "We keep messages on the board as long as they contain information that's useful to new users," says Watkins. "This forum is a good place for people to come when they need help with downloading and reading information offline." The IBM Communications Forum addresses topics related to communications programs and hardware. The PC Junior Forum is specifically for users of that machine.

"We're an authorized IBM users group but beyond that we have no affiliation with IBM, "says Watkins." We do have a number of IBM employees who are forum members, but they're members because of their interest in the IBM PC rather than because they're employees of IBM. IBM itself doesn't take any official position in regard to our, or any other, user group.

What about future plans for the IBM forums? "We probably won't be doing much new with the IBM forums during the first quarter of this year but there may be some new developments later in the year, "says Watkins." As far as the new IBM micros that are rumored to be around, we'll definitely integrate them into the existing forums."

— James Moran



George Olson

From PC Jr. to PC-XT: *Watkins' forums appeal to IBM users*

Gift of Time

Online Today offers subscribers the chance to write a 200-word essay on how they use CompuServe's Information Service.

Your essay should be typed double-spaced. Send it to *Online Today*, CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220, or by an EasyPlex message to 70003,3246. Please incl ude your full name, address and User ID number.

If we use your column, you will receive 10 hours of standard service co nnect time (a $60 value) and a byline.

Doctor Consults CompuServe

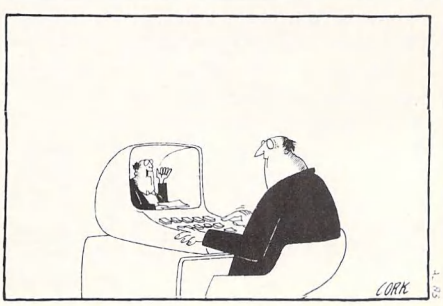
My 27-year-old patient, Paul, was racked with fever, a hideous disease raging within. As an internist, a doctor specializing in diagnosis, I was stumped. I needed to know what illness was consuming Paul, and frankly, I was worried that he might die.

It was then that I used medicine's newest clinical tool: the ability to go online and wander through CompuServe's MEDSIG to find colleagues and tap their knowledge. I thought that perhaps one of them could provide some information about Paul's symptoms. In addition, I could access enough medical literature to uncover clues to rare diseases from more than 3,000 journals online.

After a little time online, I had an answer to Paul's problem. And after a week of treatment, Paul went home.

Sure, I use CompuServe to do other things—correspond via EasyPlex, learn about the world through Grolier's *Academic American Encyclopedia* and fix meals from online recipes. But what matters is that I can use CompuServe for a special purpose: to heal the sick. For that, I am grateful, and so, by the way, is Paul.

Bruce A. Mann, M.D.
Albuquerque, N.M.



NEW PRODUCTS

Discover Orlando Adds Camp Info

Discover Orlando announces the addition of camping, hiking and canoeing information including detailed outlines of all Central Florida state parks, historic sites and canoe trails.

Campground directories also are available for anyone interested in public RV parks and campgrounds. GO ORLANDO

Gerhold/Smith

ETC Now Offers Telephone Codes

The Educational Travel Connection now offers country and city codes for more than 250 countries served by AT&T to help avoid operator assistance surcharges. ETC also provides complete instructions for direct dialing, time differentials and cost per minute rates to help calculate costs and determine "peak" and "off peak" periods for the country you want to call. GO ETC-40

Ashton-Tate Announces Winners

Ashton-Tate announces "Show Us Your Code" contest winners Jim North and Larry Roberts and runners-up Perry Minyard and Donald H. Marks.

North won for his dBase III+ program, MEMBER.ARC, and Roberts for his Framework II entry, ENTRY.ARC. Each will receive their choice of Ashton-Tate software or one month of free time on the Ashton-Tate Forum.

Five Ashton-Tate Publications books or $25 of CompuServe connect time and one week of connect time on the Ashton-Tate Forum will be awarded to Minyard for his dBASE III+ program, MIS.ARC, and Marks for his Framework II entry, REFERN.FW2.

These winning programs and other submitted contest programs may be reviewed and downloaded from Data Library 8 of the Ashton-Tate Forum. GO ASHFORUM

Microsoft Connection Available

The Microsoft Connection, a new CompuServe database, is now available to provide immediate product support to Microsoft product users.

Microsoft's Languages Newsletter and information about Microsoft developments, general products and Microsoft's Product Support Group are included in the Microsoft Connection.

Common questions and answers for Microsoft products including Microsoft Windows, Microsoft Access, Flight Simulator, C Compiler, Fortran and COBOL may be found in the Product Technical Support section. GO MSCON

Aldus Forum Supports Pagemaker

The Aldus Forum now is available to provide information and support on Aldus Corp.'s desktop publishing product, PageMaker for the Macintosh, its new version for the IBM PC-AT and AT compatibles and future releases.

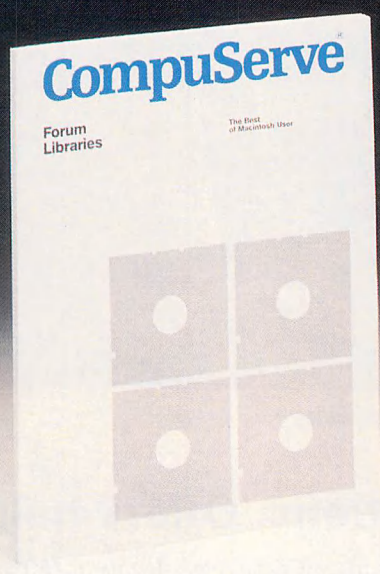
This new forum provides an area for PageMaker users, dealers, service bureaus, third-party developers and other interested parties to communicate directly with Aldus, its technical support staff and other forum members. GO ALDUS

Travelshopper Drops Surcharge

Travelers now may use Travelshopper often and extensively to research airline schedules and fares and to make reservations without paying a surcharge.

CompuServe subscribers now using Travelshopper will be billed only for CompuServe connect time rates and any communications surcharges.

A variety of services including theater schedules, city information, around-the-world weather, currency conversions and air distances also are available through Travelshopper. GO TWA



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Alan Carey

Translating medical information into practical advice: *the Lewises*

HSX Answers Questions, Offers Help

The Human Sexuality service is, according to creators Howard and Martha Lewis, "an online utility for sex education." The Lewises, who started the service in 1983, have made a specialty of translating medical information into practical advice for users.

You might say they're experts on the topic. They have written 10 books including *The People's Medical Manual*, *Sex Education Begins at Home*, *The Parent's Guide to Teenage Sex and Pregnancy*, and *Psychosomatics: How Your Emotions Can Damage Your Health*. In addition to writing for *Reader's Digest*, *Family Circle* and *Consumer Reports*, they are contributing editors of the *Journal of Sex Education and Therapy*, *Medical Aspects of Human Sexuality*, *Sexuality and Disability* and *RN Magazine*.

Their service also has gained the attention of professional organizations. This month, the Lewises will be demonstrating their service at a convention of the American Association of Sex Educators, Counselors and Therapists and the National Online Meeting.

"Much of HSX's appeal derives from videotex's capacity for combining intimacy and anonymity," observes Martha. "You are alone with your computer. And while you're online with HSX, you're known only by whatever name you choose to give." Such confidentiality invites candor — HSX users feel free to ask intimate questions and share troubling experiences. "Because the superficialities of age, appearance and financial status are bypassed in online communications, people make contact more quickly on a deeper level and get to know others they might not have spoken to otherwise," says Martha.

Although people are more knowledgeable about sexuality today, many of the subscribers' questions show that old myths are still alive. "Unlike what we've been led to believe by the media, people vary greatly in their behavior. There's a widespread need for information about sexual functioning," says Howard. "We provide a place where people can ask questions they can't ask anywhere else and get authoritative answers," says Howard.

Subscribers who access the HSX service can get information through a reference database and an online forum. Compiled in the informal style of popular magazines, the database incorporates information from such specialties as gynecology, psychiatry, pharmacology, urology and endocrinology. Consulting editors include professors, researchers, and practitioners, such as Harold I. Lief, M.D., an internationally-known psychiatrist. "HSX provides subscribers with a direct line to the foremost authorities in sexual medicine," says Howard.

The "Special Features" section contains articles and presentations written in response to readers' questions on such subjects as birth control and venereal disease. Another menu choice, "Online Transcripts," presents conversations with experts on sexual dysfunctions. In one transcript, family physician Randall Rissman gives self-examination instructions for testicular cancer. After following Dr. Rissman's instructions, one reader found a tumor

and had it removed in time to save his life.

The majority of inquiries are on specific topics. Martha receives about 500 "Hotline" letters a week. Replies can be found in "Answering Your Questions." With more than 120 menus containing 1000 Q&As, users will likely find the information they're looking for before consulting the Hotline. (Q & As also are cross-referenced in the index.) "We take all questions seriously and answer them as soon as possible," says Martha. The free-form "Letters and Personals" area enables readers to share their experiences, opinions and ideas. "Talk about Relationships" or "talkabouts" as Martha calls them, are message threads revolving around a variety of personal and social concerns such as friendships between men and women, and how to recover from a breakup.

An online index (GO HSX-1000) containing GO page references on hundreds of subjects provides a key to the service. "There's enough material for a short course on most topics in the fields of sexuality and psychology," says Howard. This part of HSX can be especially helpful to teenagers and others who may be embarrassed about asking questions, since users can obtain facts by pressing a few keys. "As a parent, I'm aware of the misinformation and pressures generated by peers," says Linda Thoirs, CompuServe product specialist. "Knowing the truth about sex, pregnancy and disease can prevent young people from being led into harmful situations."

There are about 500,000 self-help groups in the United States, enabling members to share their feelings and provide assistance and encouragement. The Lewises have created the online equivalent of support groups by adapting CompuServe's forum software. The HSX Support Groups are divided into Forum A (GO HSX-100) and Forum B (GO HSX-200). "Our goal is to create a compassionate community, where members feel comfortable discussing their emotions and relationships," says Howard.

To help members speak freely, the HSX agreement—a code of conduct that includes honesty, respect and confidentiality—is enforced. Members use only a first name or a first name and last initial. "First-time violators of the agreement get a friendly warning," says Martha. "If they persist, they are locked out." "It's a reassuring environment because you meet others who share the same commitment to openness," observes Martha. "We have round the clock rap sessions on our conference areas, where people come online to talk with friends.

Along with HSX, several support groups are getting underway in the Health Forum (GO HNT). Topics include sexuality and living with children. This forum also sponsors groups dealing with alcohol, nicotine and drug addiction, and online Alcoholics Anonymous conferences. Data libraries contain transcripts of these, in addition to articles on marijuana hazards and determining past drug usage. The Health Forum holds online conferences every night starting at 8:30 p.m. EDT.

Both the Lewises and Thoirs stress that the support groups are not a substitute for psychological or psychiatric counseling. "Because of their nature, the groups cannot 'cure' deep-seated, ongoing personal conflicts," states Thoirs. "But they can encourage users to seek outside help, if needed."

—Sandra Gurvis

Guides Help Users Find Forum Software

CompuServe now offers five forum software guides to the best programs in IBMNET and the Amiga, Atari 8-Bit, Tandy Model 100 and Macintosh Users Forums.

With these new guides, known as "The Best of" series, you can scan for the best public domain, shareware and freeware programs available for these computers. Each guide includes 120 to 150 pages of program descriptions in magazine format to help you quickly find hundreds of utility programs and stand-alone applications.

"The greatest advantage of the guides is that you can flip through them at your leisure and know where the files are online, thus reducing connect time," says Kathy Ennis, CompuServe product marketing specialist. Each guide includes the following information for each file: filename, location of the file, file description, size of the file in bytes, User ID number of the uploader and the date the file was submitted to the forum.

An index in each guide allows you to search the files by the subject of your choice. "Not only can you find the programs that you have been looking for to help you with that necessary task but also you can find programs for those tasks that you never thought could be done on a computer before," Ennis says. All indexed files are assigned a reference number that accompanies an alphabetic listing in the guide's index. "The index highlights downloading help and an introduction from the forum administrator, who also provides helpful hints," Ennis says.

File descriptions tell whether a file complements existing commercial software, is packed along with other files or requires particular protocols for downloading. The file descriptions include comments from the author, forum administrator or uploader.

"Reading a catalog description takes a lot of time. You can save time and money by simply defining your quest before downloading," Ennis says.

The size of the file in bytes is provided to give you an estimate of the file's required download time and the amount of disk space required. You may send questions to the User ID number of the uploader.

The date of the file's submission to the forum is provided to assure the release is current. New uploads also may be reviewed. Many file descriptions also include the name of the author and the release number version or date.

"The Best of" guides are $9.95 plus $2 shipping and handling and may be purchased online. To order online, type GO ORDER at any CompuServe Information Service prompt or call 800/848-8199 (614/457-0802 in Ohio or outside the United States) and specify which guide you would like to order.

—Denise Erwin

Change Your Password

The CompuServe Information Service urges its customers to change their passwords at least once a month.

The password should be a minimum of eight characters composed of two unrelated words separated by a symbol, for example: HOUSE*MAGNET.

To find out how to change your password, type GO PASSWORD.

Ask Customer Service

Q: How do I send a TELEX message?

A: The command to send a TELEX message to a destination within the continental United States is:

Send to (Name or User ID number):›TLX ‹machine nu:› ‹answerback›

for example:

Send to (Name or User ID number): ›TLX 1234567 ABCDEF

The answerback feature is optional, but can be helpful in verifying the machine number. If you choose to use an answerback, it must be complete and correct for the TELEX to be delivered. If you are not certain of the correct answerback, please omit it.

If you are sending a TELEX to a destination outside the continental United States, the TELEX is considered to be international and you must precede the TELEX number with a three-digit country code. The format to send an international TELEX is:

Send to (Name or User ID number): ›TLX ‹country code› ‹machine nu:› ‹answerback›

for example:

Send to (Name or User ID number): ›TLX 9491234567 ABCDEF where 949 is the country code and 1234567 is the TELEX machine number.

Again, the "›" character must be entered before TLX. You can view a list of valid country codes online by typing HELP TELEX SEND at the EasyPlex Main Menu.

When your TELEX has been delivered, you will automatically receive a notification. If your TELEX cannot be delivered, EasyPlex will return the message and give an error code indicating the reason the TELEX could not be delivered.

Q: How are messages received from TELEX users?

A: EasyPlex allows you to receive a message from any TELEX or TWX machine in the world.

The information the TELEX or TWX user needs to send a message to your EasyPlex mailbox is:

- Your CompuServe User ID number
- The machine number to send the message to: 3762848 (which has the answerback of CompuServe)

The sender must specify on the first non-blank line of the message a "To:" followed by "EASYPLEX" and then your User ID number to tell EasyPlex where to deliver the message. If a subject is desired, the sender also can add an "Re:" after the "To" line in the message.

The format would look like this:

To: EASYPLEX70001,1234 (This is required)

CompuServe (This is optional)

Re: TEST MESSAGE (This is optional)

Q: How do I change from command or prompt mode to menu mode?

A: EasyPlex menus cannot be viewed while in the command or prompt mode.

To change from command or prompt mode to menu mode, type SET MODE MENU at the EasyPlex prompt and press the Return key. This will return you to the menu mode for the current session. Once in the menu mode, follow the steps below if you would like your changes to be effective for future sessions.

To change modes, select "Set Options" from the EasyPlex main menu. For a description of the different modes, type HELP at the "Enter Choice !" prompt. You may choose to make changes in your settings effective for the current session only or for future sessions.

Q: How do I send an EasyPlex message to more than one subscriber?

A: You can use the SEND command to mail your message to up to 10 subscribers at a time or to mail your message to your own mailbox.

At the EasyPlex "Send to (Name or User ID):" prompt, type the User ID number or name of each person that you want to receive your message, separating each entry with a semicolon. For example, if Jake wanted to send his message to his friends Janet and Max, to User ID number 70000,00 and to himself, his entry would look something like this:

Send to (Name or User ID number): JANET BARNES;JAKE; 70000,00;MAX FLENT

Remember, in order to use a person's name at the "Send to" prompt the person's name *and* User ID number must first be entered into your EasyPlex Address Book.

Q: After you delete your EasyPlex messages, how do you exit the EasyPlex service?

A: If you type T or M, press the Return key or use a GO command to exit EasyPlex. If you type BYE or OFF to log off CompuServe, your deleted EasyPlex messages will not be saved.

If you exit EasyPlex by entering a CONTROL-C or by disconnecting your modem, the system assumes that a communication problem has occurred and saves your just deleted EasyPlex messages before logging you off.

—Patty Gordon and Bob Serio

These answers and more are available in Customer Service's Question & Answer Database. You can find answers to questions about billing, logging on, using forums, sending EasyPlex messages, using the Personal File area, setting up a Personal Menu and more. Type GO QUESTIONS at any prompt on the CompuServe Information Service.

PROTECTED BY DES

BUY AND SELL STOCKS

Our Tickerscreen Direct Order Entry System is the First Commercial Application of the Data Encryption Standard.

All Account Numbers and Passwords are Encrypted.

For A Free Brochure
On CompuServe
GO TKR
In The Electronic Mall
GO MU
Or Call Toll Free
(800) 223-6642
In New York
(212) 687-0705
Modem 5:00 PM - 9:00 AM
24 Hours Weekends
(212) 986-1660

MaxUle& Company Inc.

202 East 39th St.
NY, NY 10016

GO EBB or circle 8 on the Reader Service Form.

Go Mall

A GUIDE TO COMPUSERVE'S ELECTRONIC MALL™ MAY/JUNE 1987

Win an Alaskan Holiday from Alaska Teleshopper

Get Your Free Electronic Mall Clock/Calendar

See Sears' New Recreation and Fitness Section

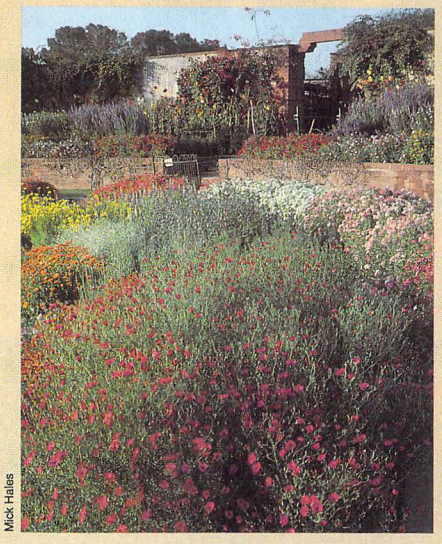
Welcome AutoVision, Black & Decker, Bike Barn, B&K Beauty Supplies, and Bowers, Schumann & Welch

David Muench

THE ELECTRONIC MALL™

Catch Spring Shopping Fever With Springtime At The Mall

DEAR SHOPPER



Mick Hales

This spring we at The Mall want to save you time. To make your spring shopping a breeze, we've created Springtime at The Mall, a special database featuring gift-giving guides for Mother's Day, Father's Day, weddings and graduations.

Not only will we save you time, we'll also give you the gift of time. Five hundred lucky Mall shoppers will get free Electronic Mall clock/calendars.

Speaking of time, don't forget that connect time in the Mall, is the lower standard rate. That means you can shop anytime, any day without paying higher connect fees. In this issue of *GO MALL*, we'll also save you money. Inside, you'll find savings on furniture, menswear, software and more. We invite shoppers to play "The Price is Wrong," a new Mall game where you could win a $12.50 usage credit.

So step inside this spring issue of *GO MALL* where you'll discover news on new merchants, contests and special offers.

Electronically Yours,
Cindy Morgan

Cindy Morgan

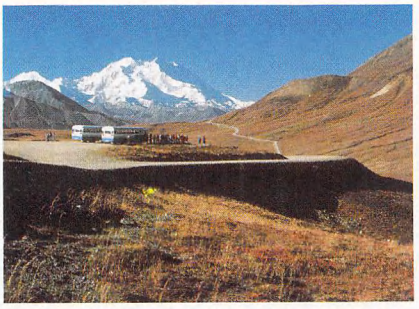
GOINGS ON

Get a Free Mall Clock/Calendar
Shop The Mall in May and you could qualify for a free Electronic Mall Clock/Calendar. Plus Express Music's new Artist Profile...Coffee Emporium's Create Your Own Sampler Pack and more—all inside this issue of *GO MALL*.

Shop Free at AT&T on Father's Day
Subscribers are invited to visit the AT&T database on Father's Day, Sunday, June 21. There will be no connect fees in the AT&T database from midnight Saturday to midnight Sunday. For details, GO ATT.

Play "The Price is Wrong"
Come on down! All shoppers are invited to play "The Price Is Wrong," The Mall's new game. Guess which prices are wrong and you could win a $12.50 CompuServe usage credit. Details inside.

IBM Introduces Next Generation
Find out about IBM's next generation of systems for personal computing: Personal System/2™. For details, GO IBM.



Summer Solstice Contest Opens at Alaska Teleshopper
Visit Alaska Teleshopper for your chance to win an Alaskan holiday. This summer you could travel to the land where, for one day, the sun never sets. GO AK.

GO Mall

***GO MALL*, May/June 1987**
Volume 1 Number 2

GO MALL is published bimonthly by The Electronic Mall™, a service of the Advanced Media Group, CompuServe Incorporated. For more information, call 513/296-4850, or send an EasyPlex to 70007,1610. Editors: Cindy Morgan, Karli Kohrs and Kacy Cook.

SPRINGTIME AT THE MALL

Be one of the first 500 shoppers to purchase $75 or more in merchandise and get an Electronic Mall Clock/Calendar free.

May ushers in a season filled with gift-giving days. Mother's Day is May 10. Father's Day is June 21. There are May graduations and June weddings. To make your spring shopping easier, Springtime at The Mall, a special database, features several gift-giving guides.

You can browse special directories of ideas for moms, dads, grads, brides and grooms. Or you can shop at more than 70 stores.

For Moms, visit Inside * Outside (GO IO) for luxury lingerie, Merle Norman Beauty Products (GO MN) for cosmetics and fragrances, and Lincoln Manor Baskets (GO LM) for gift baskets.

For Dads, try Heath Co. (GO HTH), Sunland Camera (GO SUN), Black & Decker Powerline Network (GO BD) or Apparel Concepts for Men (GO APC).

With one trip to The Mall you can take care of your spring shopping, save hours and shop at many of America's leading retailers and specialty shops.

Get an Electronic Mall Clock/Calendar Free

To reward you for saving time by shopping electronically, we'll be giving a free Electronic Mall Clock/Calendar to the first 500 shoppers who make purchases totaling $75 or more at The Mall during any 24-hour period beginning May 1 and ending May 31, or while supplies last. This custom timepiece is yours simply for shopping at The Mall!

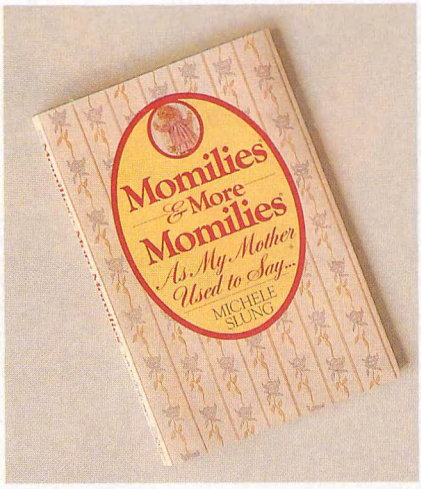
For details on how you can get your free Electronic Mall Clock/Calendar, type GO SPR beginning May 1.

MOTHER'S DAY GIFT IDEAS

Eating Right for Two from Carolina Health and Fitness (GO HF)

Full-Grain Leather Cosmetic Case from Woodstock Leather (GO BAG)

Breakfast-In-Bed Basket from Lincoln Manor Baskets (GO LM)



Momilies and More Momilies: As My Mother Used to Say... A collection of witty maternal maxims, from Ballantine Books (GO BAL)

Mother's Day Bouquet from Fifth Avenue Shopper (GO FTH)

One Dozen Red Roses from Walter Knoll Florist (GO WK)

A Merle Norman Gift Certificate from Merle Norman Cosmetics (GO MN)

Ultimate Silk Charmeuse Gown in pearl white or soft pink by Christine Proenza, from Inside * Outside (GO IO)

FATHER'S DAY

Sunshine Orange Rum Cake flavored with Florida oranges and rich Caribbean rum. The 2¼-pound cake is packed with a half-bushel of grove-fresh oranges. Delivered price is $39.95, from Florida Fruit Shippers (GO FFS)

HOW TO ORDER FROM THE MALL

Shopping The Mall

Ordering from The Electronic Mall is easy. Each time you enter a Mall store, a personal order file, much like an electronic shopping cart, is opened for you. Browse a store's database. When you see a product you would like to buy, type the letter "O" and the order will be placed in your file, or shopping cart; this process is similar to selecting an item from a store's shelf.

You can order directly from the product description page; there is no need to return to a store's top menu. You can order one item or a dozen items. When you type "O," the system does not complete your order; it only registers your desire to make a purchase. The order process is the same for every Mall merchant, but methods of payment and delivery may differ.

Checking Out

To complete your order, you must "check out." You can do this by typing CHECKOUT, the GO command of the next store you wish to visit or any command that takes you elsewhere on CompuServe. This tells the system you are ready to complete the order process and triggers the next step. You now have two options:

1. You can cancel your order by typing EXIT.
2. You can complete your order by responding to a series of prompts for additional information, such as quantity, name and address.

When you have supplied the necessary information, you will receive an order summary. You now have the chance to change part or all of your order. For example, if you've ordered three books but decide you only want two of them, you can delete one book from your order. Or maybe you've realized that you would like to have your order shipped to your office instead of your home. You can make that change, too.

Once you've made any changes, you again will get the chance to review your order. When you confirm the order as correct, you will receive an order confirmation number. *At this point, your order is complete.* It is sent electronically to the Mall merchant's CompuServe mailbox. The merchant then processes the order.

If you have questions regarding your order, it's best to contact the merchant directly by using the customer service information provided within each store.

Smoked Red Salmon Filet Gift Pack: The next best thing to traveling to Alaska and hooking one yourself, from Alaska Teleshopper (GO AK)

Cotton Fatigue Sweater by Alps, five-button front, in navy, ivory, forest green, blue, red. Regularly $45, on sale for $31.50, from Apparel Concepts for Men (GO APC)

AMERICAN EXPRESS TRAVEL RELATED SERVICES
An American Express company

Be My Guest® Gift Certificates from American Express (GO AXM)

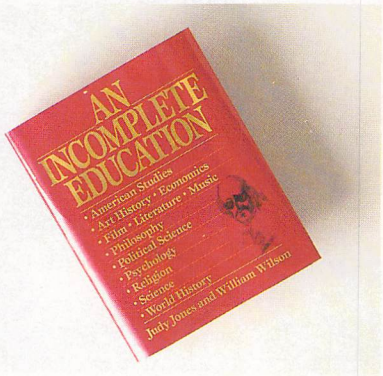
Pawley's Island Rope Hammock from Rin Robyn Pool 'n' Patio (GO RR)

Ten 12-ounce Sirloin Strip Steaks—USDA choice midwestern grain-fed beef from Simon David (GO SIM)

Best European Travel Tips from Waldenbooks (GO WB)

Canon SureShot® Supreme A/F Quartz camera from Sunland Camera (GO SUN)

An Incomplete Education by Judy Jones and William Wilson. The perfect gift for every grad, from Ballantine Books (GO BAL)

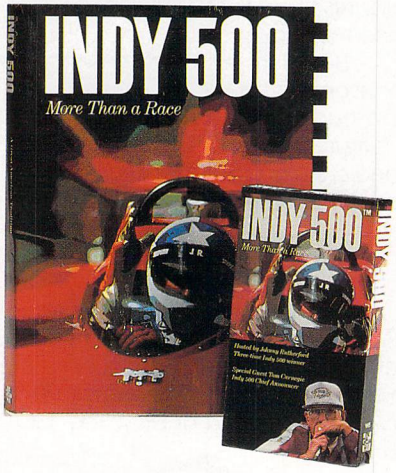


Hawaiian Isle Beach Set from Hawaiian Isle (GO HI)

Fast Times at Ridgemont High Beta or VHS from Magic Castle Video (GO MV)

Indy 500: More Than a Race, the book, with Tom Carnegie, the voice of the Indianapolis Speedway. Lavishly illustrated with color and black-and-white photos, from McGraw-Hill Book Co. (GO MH)

Indy 500: More Than A Race, the videotape, Beta or VHS. Hosted by Johnny Rutherford with special guest Tom Carnegie, from McGraw-Hill Book Co. (GO MH)

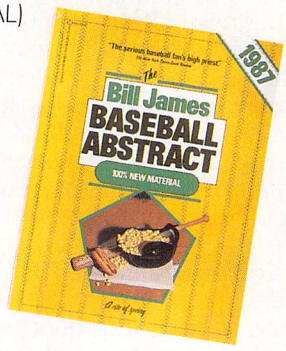


Duffle Bag with side pockets or daypack. Full-grain leather available in black, brown, burgundy, gray and tan, from Woodstock Leather (GO BAG)

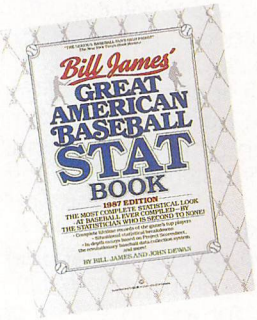
Men's and Ladies Striped Racing Shirts from Chevy Showroom (GO CHV)

Bill Veeck: A Baseball Legend by Gerald Eskenazi, from McGraw-Hill Book Co. (GO MH)

The Bill James Baseball Abstract 1987 from Ballantine Books (GO BAL)



Bill James' Great American Baseball Stat Books from Ballantine Books (GO BAL)



MicroLeague Baseball Software available for Commodore, IBM, Apple and Atari computers, from Software Discounters of America (GO SDA)

New Mall Merchant Offers Beauty Products

B&K Beauty Supplies carries the beauty products that professionals have relied on for years, including those from Paul Mitchell, Rachel Perry, Nexxus, Evita, Focus 21 and Redkin. Browse B&K's online catalog and select from shampoos, conditioners, skin care lotions, bath gels, and manicure and pedicure supplies.

If you have questions about any product featured or would like advice on your own beauty regimen, B&K invites you to send an EasyPlex message. (GO BS)

New! Auto, Home, Life and Business Insurance

New Mall merchant Bowers, Schumann & Welch, celebrating its 20th year in the insurance business, offers CompuServe subscribers all lines of insurance coverage including auto, home, life and business. Part of Insurance Services Unlimited, a network of 500 agencies nationwide, Bowers, Schumann & Welch offers you prompt, professional and personal service.

CompuServe subscribers are invited to come in for a free, no-obligation comparison quotation on their present insurance policies. Contact Bowers, Schumann & Welch's "Ask the Agent" with insurance questions and quotation requests and a local ISU agent will respond quickly.

Although no accident is funny, Bowers, Schumann & Welch thinks there's a lighter side to misfortune. "On the Lighter Side," an amusing selection of actual quotations from accident statements from insurance forms, is available in this firm's database.

Finally, just for stopping by, Bowers, Schumann & Welch has a free gift for you. To request your free gift and to get insurance assistance, type GO BSW.

Bike Barn Offers Full Line of Bicycles and Equipment

With the grand opening of Bike Barn, a family-owned business operating out of Palm Beach County since 1976, CompuServe subscribers can order bicycles and equipment online.

Bike Barn features a full line of Panasonic bicycles for men and women, freestyle bicycles for the younger set, and dozens of parts, accessories and bike gear.

More than a dozen Panasonic models for men and women are offered. The perfect entry level bike for racing or triathalons is the Panasonic DX-1000. This sleek, turquoise-and-white bike is built for speed and comfort.

Bike Barn also recommends the Panasonic Cruiser for the beach. Constructed of lightweight aluminum, it features fat tires, a big seat, wide handle-bars and five-speeds.

Also featured in the online catalog are dozens of parts and accessories to equip your bike for comfort and safety.

Every Bike Barn item has been tested by the experienced staff. If you have questions, Bike Barn invites you to use the "Talk To Us" section. To discover the world of bicycling, GO BB.

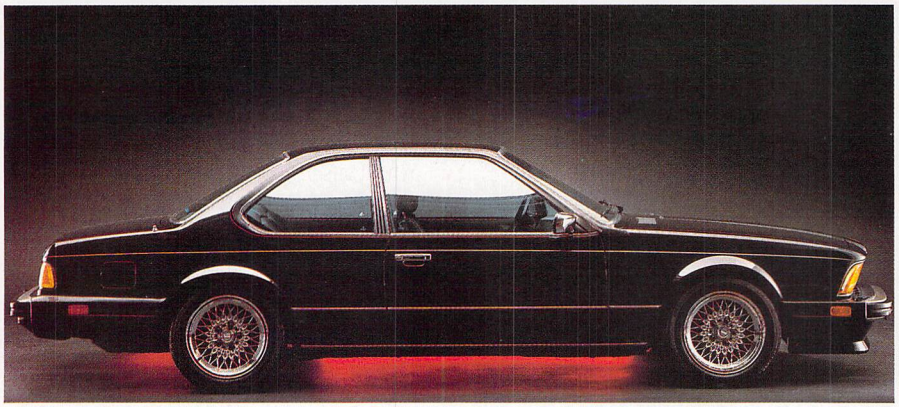
Car Buying Made Easy

Lamborghini, Jeep, Porsche, BMW, or Buick, it's easy to buy any of these cars through new Mall merchant, AutoVision.

A joint venture between Crevier Leasing Co. Inc. and its franchise dealer, Crevier Motors Inc., AutoVision takes buying or leasing an automobile into the next century. Crevier, in business since 1971, has delivered thousands of automobiles to customers in southern California. Now AutoVision offers the same customized auto buying service to customers from coast to coast electronically.

When you visit the AutoVision store, select EasyOrder, AutoVision's 24-hour quotation service. When you tell AutoVision what kind of car you're looking for, you'll receive a tailored quotation overnight. Through a nationwide network of dealerships, AutoVision can help you find a wide range of imported and American cars.

After receiving your EasyOrder, you're invited to complete AutoVision's online customer credit application. Once your application is approved, you'll receive an approval number through EasyPlex. Then go to the AutoVision store in The Mall and select New Car Ordering Service. Key in your order and credit approval number and AutoVision will process the paperwork. All you need to do is arrange for delivery of your new car at the franchise dealer closest to you.



Corporate Transportation Programs Available

AutoVision also offers the Corporate Transportation program, designed for the transportation needs of Fortune 2000 companies.

AutoVision, with major lenders, offers leasing and financing for executive autos. Fleet cars and trucks, tractors, trailers and even satellites.

For transportation to go, visit AutoVision today. GO AV.

Black & Decker Powerline Network Opens Online

The Black & Decker Powerline Network, an independent distributor of Black & Decker products, offers a varied selection of products for the handyman, the renovator, the hobbyist and the gardener—at substantially discounted prices. Orders placed online are filled promptly, shipped from the Black & Decker warehouse nearest you and delivered by UPS within 14 days.

Black & Decker Powerline Network's online catalog features a selection of auto care products, lawn and garden tools, saws, drills, sanders, routers, grinders, planes, hobby tools, painting and stripping tools and more.

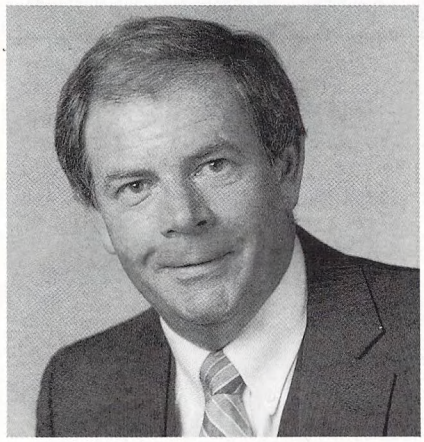
Each month a new item, discounted exclusively for CompuServe subscribers, will be featured as Black & Decker's Super Special. This month's Super Special is the Mini-Cultivator Garden Tiller.

Discover Black & Decker Powerline Network today. GO BD

Milkins Jewelers

Milkins Jewelers, personal jewelers and gemologists since 1905, offers a selection of diamonds, pearls, jewelry and unique gift items through The Mall.

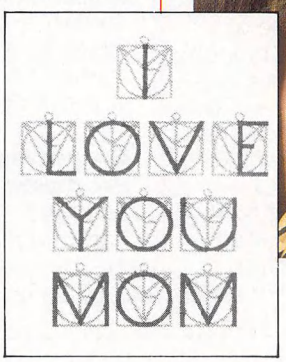
"The Electronic Mall allows us to offer fine jewelry and gifts at prices below those in our retail stores because of the lower overhead," explains Doug Milkins, proprietor of Milkins Jewelers.



Milkins offers online explanations of things you need to know to buy jewelry. For example, you'll find an explanation of the "five C's" to look for in a diamond: carat weight, color, clarity, cutting and confidence. You'll also find an explanation of the difference between 14kt and 18kt gold and a listing of birthstones.

For Mother's Day, Milkins suggests a diamond eternity ring, a sterling silver Hershey's kiss or a 14kt gold love maze charm that, when decoded, spells "I Love You Mom." For Father's Day, consider gold cuff links or a silver-plated personal golf tag. For graduates you'll discover cultured pearl necklaces and diamond stud earrings. And, for the bride and groom, consider crystal by Swarovski.

"We invite CompuServe subscribers to come in and browse our store," says Milkins. "Tell us what you're looking for in an online jeweler and we'll do our best to serve you." (GO MJ)



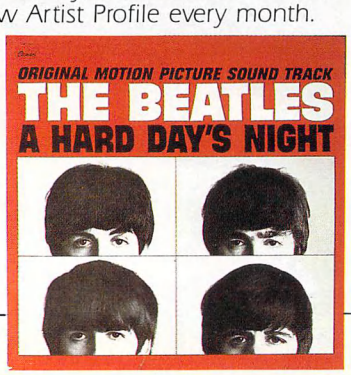
Express Music's Artist Profile: The Beatles

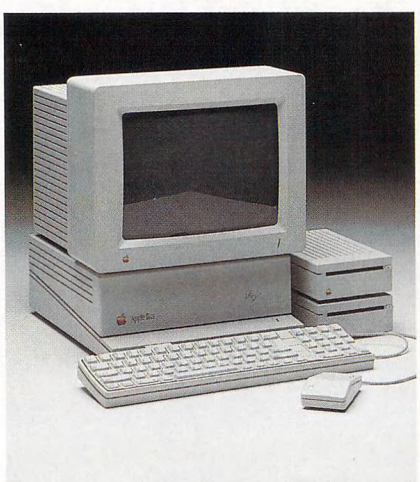
Express Music has added a new feature, the Artist Profile. And what better group to profile first than George, Paul, Ringo and John?

Online you'll discover Beatles trivia, a look at the Beatles music through the years, and news on four new Beatles CDs: *Revolver, Help, Rubber Soul* and *Sgt. Pepper's Lonely Hearts Club Band.* You can order all four online.

Express Music also carries four other recently released Beatles CDs: *A Hard Day's Night, With The Beatles, Please Please Me* and *Beatles For Sale.*

To take a trip through rock 'n' roll history, GO EMC. And watch for a new Artist Profile every month.





Software Discounters Has Packages for Apple IIGS

If you own an Apple IIGS, visit Software Discounters of America for a special selection of Apple IIGS software. Among the featured products are Hacker II: The Doomsday Papers, Paintworks Plus and The Music Studio. To order, GO SDA.

Calling All Apple Owners! Buick Dimension is Here

If you own an Apple II or a Macintosh you can go on an interactive shopping trip for a new car with Buick Dimension, a new software program that is informative and fun.

Buick Dimension can answer questions about any new Buick with data, diagrams and animated graphics. You can equip your dream car any way you want it, and Buick Dimension's electronic spreadsheet will tell you the price, and even your monthly payments.

To discover what Buick Dimension has to offer, GO BU.

Plan for the Future with Dean Witter Reynolds

Visit Dean Witter Reynolds for ideas on how to plan for your child's college education, next year's taxes or your retirement.

At Dean Witter Reynolds there is an easy-to-use program to estimate the cost of your child's college education. Simply type in your child's age and Dean Witter will give you estimated college costs. If your child is now one year old, for example, in 2003, when he or she is 18, four years of room, board and tuition at a private college will cost about $120,609 and four years at a public college about $66,355.

DEAN WITTER
INVESTOR'S CHECKLIST
TO THE
DEAN WITTER
VARIABLE ANNUITY
Are you receiving these advantages from your current investments?
DEAN WITTER
Let us help you meet your retirement goals.
Dean Witter's Family of Funds
DEAN WITTER
Let us help you meet your investment goals.
Dean Witter's Family of Funds

Dean Witter Reynolds also offers investment ideas that can help you accumulate those dollars: zero-coupon bonds, tax-deferred annuities and custodial accounts. These income-producing products and others are described in the free fact kit on investments and strategies.

If you're planning for retirement, select the Retirement Fund Forecaster and Dean Witter Reynolds will tell you approximately how much you'll need to put aside to reach your goals. Dean Witter also offers a free, no-obligation fact kit describing more than a dozen retirement planning programs and strategies.

To plan for the future, GO DWR today.

Sears, Roebuck and Co. Offers All-Purpose Chair

Sears, Roebuck and Co. offers savings on an all-purpose utility chair. It is generously padded, has an adjustable seat and glides easily on no-mar casters. This all-purpose chair provides comfortable seating for your home or office and is ideal for use with personal computer workstations.

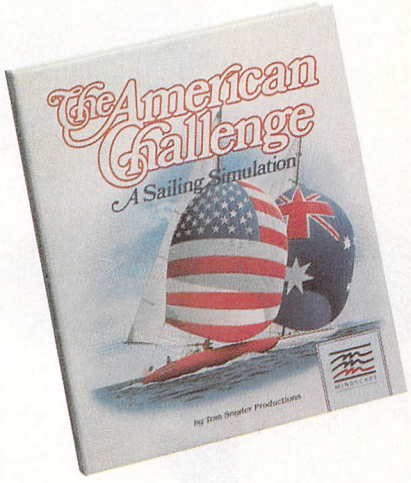
Sears is offering this chair for only $29.99. To order your chair and to discover other values at Sears, GO SR.

See Sears for Summer Fun

Visit Sears, Roebuck and Co. for a wide selection of summer merchandise. The new "Recreation and Fitness" section features bicycles, fishing equipment, golf items, camping gear, water-sports items, and exercise and aerobic equipment. For summer fun, GO SR.

Coffee Emporium Lets You Create Your Own Sampler

Because Coffee Emporium's sampler packs have been popular, Coffee Emporium now lets you create your own sampler. Visit Coffee Emporium at The Mall to find three lists of coffees to choose from. Pick four coffees from any list, specify the grind and you can have your own sampler pack. Sample and savor blends you've never tried before, such as Colombia Supremo, Brazilian Santos, San Francisco Vice or Arabian Mocha. For the best in coffee, GO COF.



The American Challenge sailing simulation game available for Commodore, Apple and IBM computers—includes the option to race against an opponent via modem, from Software Discounters of America (GO SDA)

Sperry Topsiders—the original, developed in 1935 by yachtsman Paul Sperry to provide a sure grip on wet, slippery boat decks. Each pair is handcrafted and individually stitched, from Apparel Concepts for Men (GO APC)

Radio Control Submarine from Hobby Center Toys (GO HC)

Crunchboard—Intensify your abdominal exercises safely, from Carolina Health and Fitness (GO HF)

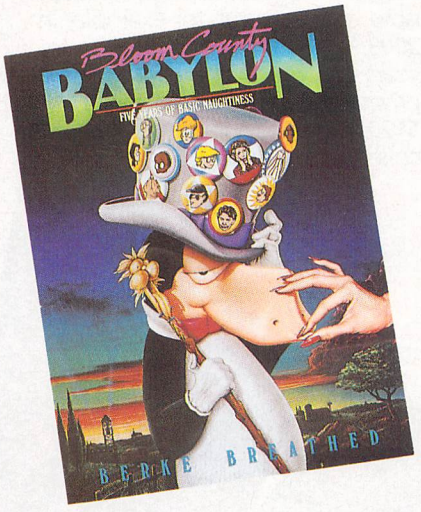
His and Hers Charleston Watches in a classic retro design from American Express (GO AXM)

Lacy Leg Garter trimmed in satin and available in pink, ivory or blue for the bride, from Inside * Outside (GO IO)

Graphics Display Adapter produces vivid color graphics. For use with the Tandy 1000SX/1200 or 3000 from Marymac Industries Inc. (GO MM)

Sprouts Garden—Grow your own sprouts, from Carolina Health and Fitness (GO HF)

Bloom County Babylon from Waldenbooks (GO WB)



Kitaro: Astral Voyage—CD from Express Music (GO EMC)

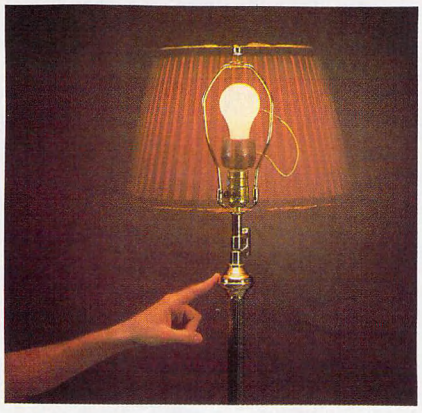
Michelin Green Guide: Italy from Waldenbooks (GO WB)

Jarmac Camcorder Gadget Bag from Sunland Camera (GO SUN)

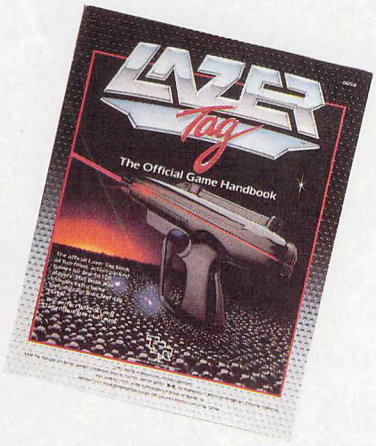
***Honeymooners* VCR Game** from Hobby Center Toys (GO HC)

Timex® "Teach Me"™ Watch from Hobby Center Toys (GO HC)

Touch Light Switch turns on a light at a touch, from Carolina Health and Fitness (GO HF)



***Lazer Tag* Official Game Book:** A 96-page book filled with individual and team games and activities, from TSR Hobby Shop (GO TSR)



Complete Computer Workstation in oak finish for your home or small business. Includes combination desk, hutch, door module, corner-connection and printer stand for only $549.95 complete, from Sears, Roebuck and Co. (GO SR)

Hanes® Pullover Hooded Sweatshirts and Hanes® Sweatpants, available in heather gray, white, navy, teal blue, fuchsia, jade, pale pink and royal blue, from L'eggs/Hanes Outlet (GO LH)

FTD Chicken Soup Bouquet—cheerful arrangement in a ceramic soup dish, from Walter Knoll Florist (GO WK)

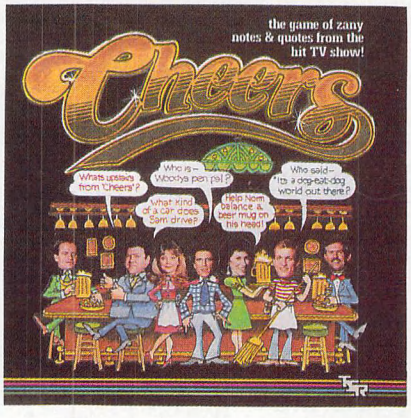
The Stork's New Baby Basket from Lincoln Manor Baskets (GO LM)

256K Printer Buffer Kit from Heathkit (GO HTH)

AT&T Model 4000 Modem from AT&T (GO ATT)

The *McGraw-Hill Encyclopedia of Science and Technology* has just been published. The new 20-volume Sixth Edition is one of the best scientific reference sources available, from McGraw-Hill Book Co. (GO MH)

***Cheers* Board Game**—A game of zany notes and quotes with beer balancing olympics, from TSR Hobby Shop (GO TSR)


the game of zany notes & quotes from the hit TV show!
Cheers
What's upstairs from Cheers?
Who is Woody's pen pal?
Who said— "It's a dog-eat-dog world out there"?
What kind of a car does Sam drive?
Help Norm balance a beer mug on his head!

EDITOR'S CHOICE

Imported Keepsake Heart-Shaped Box filled with potpourri, from Lincoln Manor Baskets (GO LM)

Porcelain Rose Bouquet—A beautiful matte-finish porcelain rose delicately painted and accompanied with a backdrop of spring flowers, from Walter Knoll Florist (GO WK)

5MB Bernoulli Box with unlimited storage and security. Works with a Mac 512K or Mac Plus and is up to five times faster than a floppy disk drive. Regularly $1,495, now $499, from Icon Review (GO IR)

Italian Party Box—Bring a little bit of Italy home, from Simon David (GO SIM)

Sears Best 19-piece Craftsman socket wrench set. Innovative new design. On sale for $39.99 from Sears, Roebuck and Co. (GO SR)

AT&T Speaker Phone from AT&T (GO ATT)

Free Specialogs. Choose from more than a dozen, including the new 1987/88 *Boating Specialog* and the *Van, RV Trailer and Camping Equipment Specialog* from Sears, Roebuck and Co. (GO SR)

AT&T Opportunity Calling℠

AT&T offers you the chance to save on merchandise, clothing, travel and entertainment with the Opportunity Calling℠ service. Enroll in Opportunity Calling and start earning credits that can be applied toward products and services featured in the Opportunity Calling catalog.

Once enrolled, you will get one credit for every dollar over $15 you spend on AT&T long-distance calls, up to $300 a month. With Opportunity Calling, you can save as much or more than you spend on your AT&T long-distance calls, and there are no additional charges on your long-distance bill. The savings credits and Opportunity Calling programs are AT&T's way of thanking you for choosing AT&T. To request your application today, GO ATT.

Elegant and Functional Mahogany Diskette Holder from Icon Review (GO IR)

Chevy Shopper Service Brochure—Free, full-color and full of Chevy merchandise, from Chevy Showroom (GO CHV)

Play "The Price is Wrong"

Welcome to "The Price Is Wrong." Below you'll find 25 items available in The Mall. All but three of the prices are correct. Be one of the first 20 CompuServe subscribers to correctly identify the three items with incorrect prices and win a $12.50 CompuServe usage credit. Contest details and an official electronic entry form can be found in the online edition of *GO MALL*. (GO GMO)

Six-CD set titled *Mozart: Early Symphonies* from Express Music (GO EMC)
Price: $100

Epyx 500XJ Joystick for use with Commodore 64/128, Atari 8-Bit and ST, from Software Discounters of America (GO SDA)
Price: $14

***Top Gun* video** (Beta or VHS) from Magic Castle Video (GO MV)
Price: $25.87

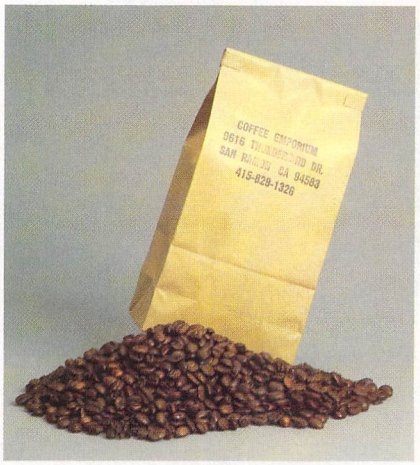
Touch-a-Matic 6000 telephone includes 56-number memory from AT&T (GO ATT)
Price: $199.95

Cordless grass shears from Black & Decker Powerline Network (GO BD)
Price: $29.98

Wicked Wahine Perfume and Cologne set—A 2-ounce bottle of cologne and a ⅜ ounce bottle of perfume from Hawaiian Isle (GO HI)
Price: $24

Welcome doormat with family name from Walter Knoll Florist (GO WK)
Price: $30

1 pound Black Velvet Custom Blend Coffee from Coffee Emporium (GO COF)
Price: $11.50



Chevy USA-1 License Plate from Chevy Showroom (GO CHV)
Price: $3.50

1-Ct. diamond earrings from Milkins Jewelers (GO MJ)
Price: $1,595

Scott Hawaii Beach Sandals for men and women from Hawaiian Isle (GO HI)
Price: $18

Combination pack of peaches and mangoes, ⅕ bushel delivered via jet from Florida Fruit Shippers (GO FFS)
Price: $16.95, delivery included.

The SK-110 Heathkit speakerphone turns your telephone into a speakerphone, from Heathkit (GO HTH)
Price: $49.95

Cosmic Catnip from New England Habitats (GO NH)
Price: $5.50

Men's crew-length argyle socks from L'eggs/Hanes (GO LH)
Price: $2.75

Executive Attaché from American Express (GO AXM)
Price: $99

A floating pool/spa thermometer from Rin Robyn Pool 'n' Patio (GO RR)
Price: $5.99

Fresh frozen rattlesnake meat from Simon David (GO SIM)
Price: $19.99/lb.

5 pounds of Jelly Bellys from Simon David (GO SIM)
Price: $9.95

Winning on Wall Street software package from Investment Software (GO IS)
Price: $199

Big Bertha Rocket Kit from Hobby Center Toys (GO HC)
Price: $10

Imported silk-knit bikini from Inside * Outside (GO IO)
Price: $7.75

"Tahiti and Her Islands" Brochure from Air France (GO AF)
Price: Free

The Heathkit SK-201 Modem Surge Protector from Heathkit (GO HTH)
Price: $14.95

Verbatim 100 Bulk 5¼-inch single-sided, double-density disks for use with all 5¼ disk drives, from Software Discounters of America (GO SDA)
Price: $39

AMERICAN EXPRESS TRAVEL RELATED SERVICES
An American Express company

American Express Congratulates Winners

American Express congratulates Daria Lewis, a free-lance technical writer from Connecticut who won the grand prize in American Express' online Valentine's Day Contest. As the 100th person to correctly identify three famous couples in history, Lewis won the grand prize of a men's Gucci watch and a Heart of Hearts diamond necklace. A new CompuServe subscriber, Lewis says, "I was just browsing in the Mall when I discovered the contest by accident. I'm a trivia buff and couldn't resist entering."

Ninety-nine other subscribers won dual heart-shaped picture frames. And, for those still wondering, the correct answers to the quiz are:

1. Lois Lane and Superman
2. Cinderella and Prince Charming
3. Humphrey Bogart and Lauren Bacall

To access American Express, GO AXM.

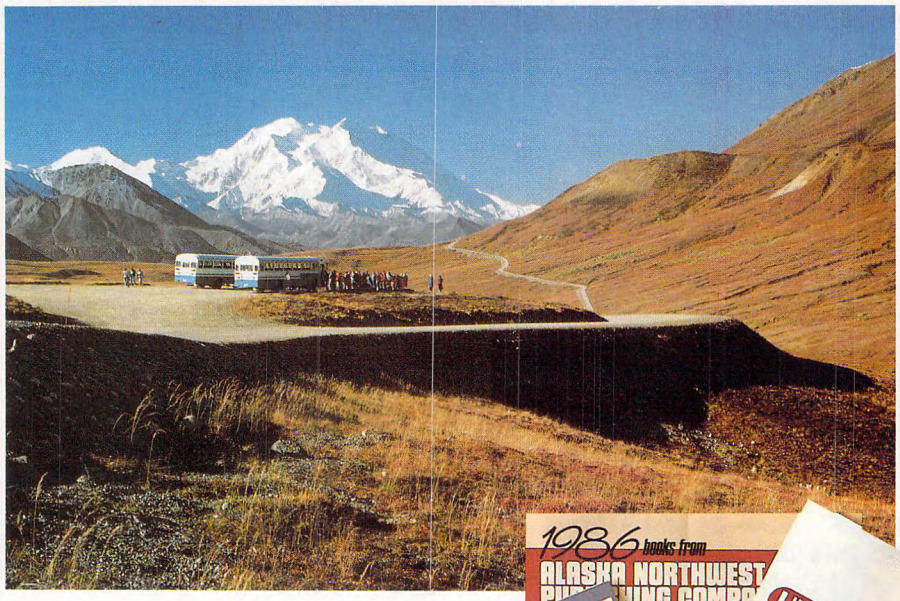
Express Music Extends Mt. Everest Top 10 Contest

Express Music is continuing its Mt. Everest Top 10 Contest during May. This is your chance to win an Express Music Catalog (a $9.95 value filled with coupons) or a $25 online gift certificate.

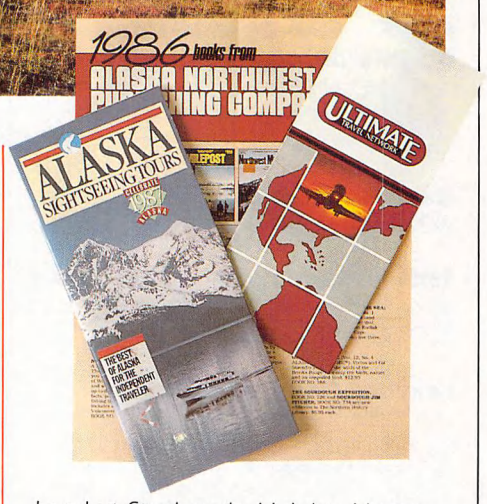
Simply enter your selection of the 10 CDs you would most like to have with you if you were stranded on the top of Mt. Everest. Every week one lucky winner will receive an Express Music catalog, and once a month a grand prize winner will receive a $25 Express Music gift certificate redeemable online.

To enter today, GO EMC.

EXPRESS MUSIC CATALOG



Jan Clemons



Alaska Teleshopper Opens Solstice Sweepstakes

Imagine welcoming summer in the land where, for one day a year, the sun never sets. This year you could spend five days in America's last frontier—Alaska.

This deluxe vacation package is the grand prize in Alaska Teleshopper's "Summer Solstice Sweepstakes." If you win, this will be your itinerary:

First, you'll stay overnight at the Anchorage International Inn on June 19. Then you'll travel to Fairbanks aboard the Grayline of Alaska McKinley Explorer luxury rail cars. See stunning views of the tallest peak in North America. Overnight accommodations in Fairbanks will be provided by the Fairbanks Inn. Return to Anchorage via the Grayline of Alaska Motorcoach.

Travel to Whittier and board the Glacier Queen II for a two-day cruise of the Columbia Glacier and Prince William Sound. Dock in the northernmost ice-free port in the world, Valdez, the hub of the Trans-Alaska Pipeline. Local activities and transportation, including your choice of a river-raft excursion or a salmon bake, will be provided by the Valdez Convention and Visitors Bureau.

Return to Anchorage via ERA Helicopters/Alaska Airlines Commuter Service. Board an ERA Helicopter for an air tour of Anchorage and the surrounding Chugach mountains. Land at Stuckagain Heights Homestead Restaurant for dinner.

This five-day/four-night package for two is offered by Mall merchant Alaska Teleshopper. All taxes are the sole responsibility of the winner. Transportation to and from Anchorage is not included. You may request free information from the trip and excursion donors by leaving your name and address in the Alaska Teleshopper Electronic Reader Service Card area.

To enter the Summer Solstice Sweepstakes, visit Alaska Teleshopper and fill out an official electronic entry form. All entries must be received by May 31, 1987. The grand prize winner will be selected at random from all valid entries and announced online on June 1. For complete rules, GO AK.

While you're visiting Alaska Teleshopper, you'll want to browse the selection of gifts, services and travel information. You'll discover jewelry, arts and crafts, and seafood gift packs.

WINDOWS ON THE MALL

Emu Table and Chair Ensemble—Place two sets together and seat four, from American Express (GO AXM)

Fuji 5¼-inch Double-sided, Double-density 10-disk Pack with a retail value of $29.95, on sale for $11.95, from Marymac Industries Inc. (GO MM)

Baedeker Japan from Waldenbooks (GO WB)

Stitz Video Light—A must for any video camera, from Sunland Camera (GO SUN)

Leather Care Package for cleaning and conditioning of full-grain leather products, from Woodstock Leather (GO BAG)

Quadlab Science Set—Explores the basic sciences including geology, chemistry, biology and microscope experiments, from Hobby Center Toys (GO HC)

Keyboard products from Korg, Ensoniq, Casio and other major manufacturers. Visit Music Alley Online for state-of-the-art MIDI technology (GO MAO)

Auto Repair for Dummies: *The Maintenance Tape* (Beta and VHS) from McGraw-Hill Book Co. (GO MH)

National Geographic videos, including *Born of Fire*, the story of volcanoes, from Magic Castle Video (GO MV)

Pest Free—The Pest Eliminator electronically eliminates flying and crawling pests, from New England Habitats (GO NH)

MALL DIRECTORY

APPAREL/ACCESSORIES

APC	Apparel Concepts for Men
IO	Inside * Outside
LH	L'eggs/Hanes Outlet
MJ	Milkins Jewelers

AUTO

AV	AutoVision
BU	Buick Magazine
CHV	Chevy Showroom
DU	Dutchess CompuLease
FMC	Ford Motor Co.

BOOKS/PERIODICALS

BAL	Ballantine Books
DJ	Dow Jones & Co.
MH	The McGraw-Hill Book Co.
MER	Mercury House
BK	Small Computer Book Club
WB	Waldenbooks

COMPUTING

ATN	Aaxion Tech Network
CE	Computer Express
HTH	The Heath Co.
IBM	IBM Canada Ltd.
IR	Icon Review
IS	Investment Software
MM	Marymac Industries Inc.
MNU	Menu International
SAF	Safeware
SR	Sears, Roebuck and Co.
SDA	Software Discounters of America
WOC	CDA World of Computers

FINANCIAL

BNB	Beneficial National Bank USA
BSW	Bowers, Schumann & Welch
INC	Business Incorporating Guide
CN	Colonial National Bank USA
DWR	Dean Witter Reynolds
EL	Equitable Life
FT	First Texas Savings
HRB	H&R Block
MU	Max Ule Discount Brokerage

GIFTS/NOVELTIES

AK	Alaska Teleshopper
EX	Executive Engravers
HI	Hawaiian Isle
LM	Lincoln Manor Baskets
TF	Tooth Fairyland

GOURMET/FLOWERS

COF	Coffee Emporium
FTH	Fifth Avenue Shopper
FFS	Florida Fruit Shippers
SIM	Simon David
WK	Walter Knoll Florist

HEALTH/BEAUTY

BS	B&K Beauty Supplies
MN	Merle Norman Cosmetics

HOBBIES/TOYS

HC	Hobby Center Toys
TSR	TSR Hobby Shop

HOME/APPLIANCES

BD	Black & Decker Powerline Network
NH	New England Habitats
VC	Vacuum Advance

MERCHANDISE/ELECTRONICS

ATT	AT&T
ORD	CompuServe Store
CFD	Crutchfield
GC	Garden Camera & Electronics
SR	Sears, Roebuck and Co.
SUN	Sunland Camera
SV	StereoVideo Factory

MUSIC/MOVIES

EMC	Express Music
MV	Magic Castle Video
MAO	Music Alley Online
RC	RCA Direct Marketing

OFFICE SUPPLIES

GL	Great Lakes Business Forms
OM	Office Machines & Supplies

ONLINE SERVICES

EF	EF Hutton
NN	NewsNet
OA	Official Airline Guides Inc.
VL	Videolog

PREMIUM MERCHANTS

AXM	American Express Merchandise
BL	Bloomingdale's By Mail
NM	Neiman-Marcus
BAG	Woodstock Leather Co.

SPORTS/LEISURE

AF	Air France
AT	Ameropa Travel
BB	Bike Barn
HF	Carolina Health & Fitness
RR	Rin Robyn Pool 'N Patio

HOW TO OPEN A MALL STORE

Do you have a product or a service that you think CompuServe subscribers could use? Consider opening a Mall store! Contact the sales office for details.

Kim Cheatham
The Electronic Mall
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Dayton, OH 45439
513/296-4850

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Reach 350,000 CompuServe subscribers with your product or service. To inquire about opening a Mall store, call 513/296-4850 or send an EasyPlex to 70007,1476.

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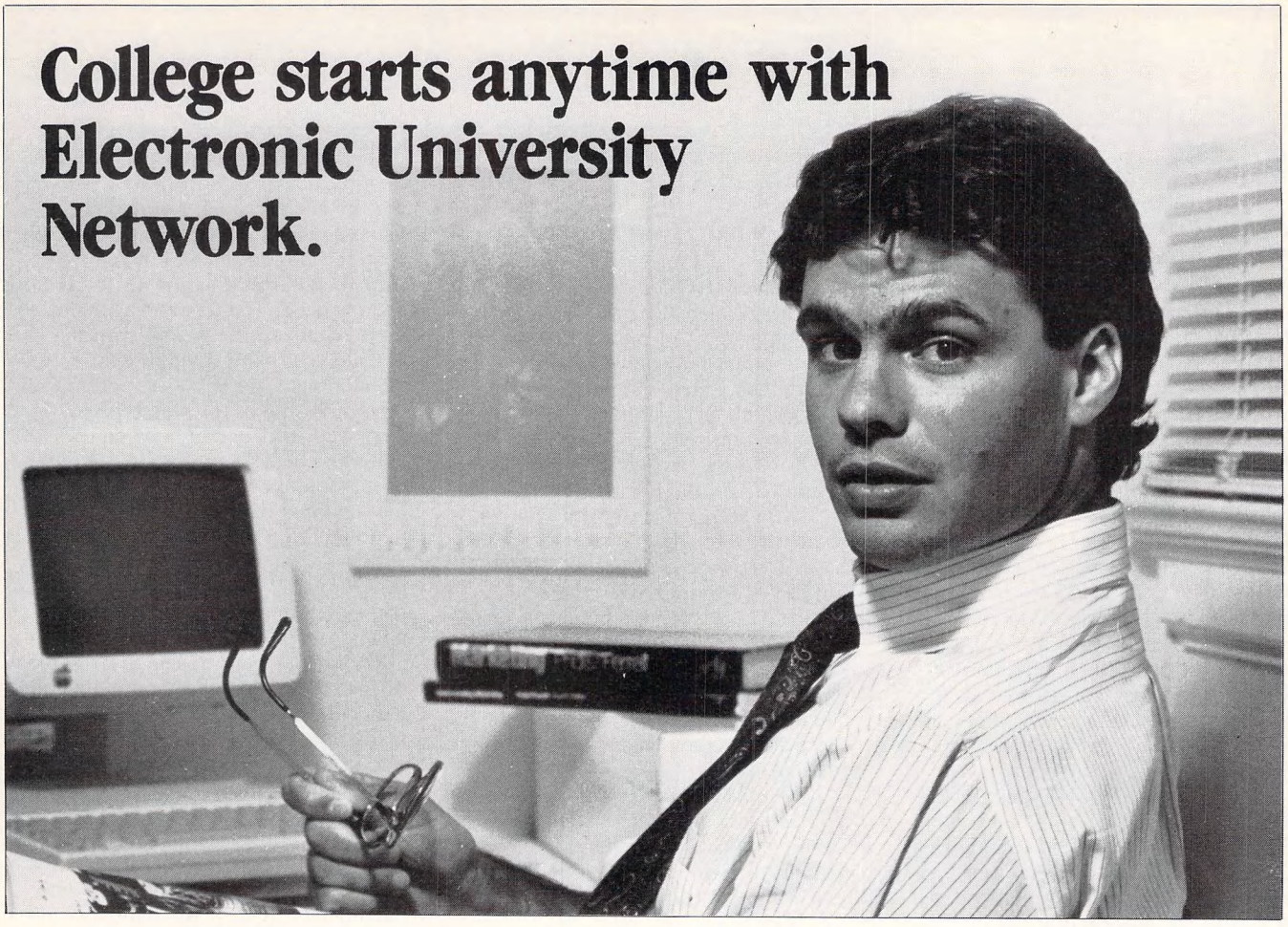

No parking. No schedules. No hassle. No reason to wait.

For some time now I've wanted to go back to college and complete my degree. But with a demanding job, a family, a busy schedule, it's not easy to find the time. On-campus education is just not practical for me.

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Pennsylvania State University
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GO EBB or circle 9 on the Reader Service Form.

Critics' Choice

Look Up the Latest Book Reviews with IQuest

Whether you want to find the latest books on baseball, write a book report for English class or just peruse reviews of some top business books, IQuest's Book Review Digest can make the work easier.

The Book Review Digest, published by the H.W. Wilson Co. and made available electronically from WILSONLINE,® provides excerpts from and citations to reviews of current adult and juvenile fiction and nonfiction from April 1983 to the present. Nearly 6,000 English-language books are included each year, based on reviews from more than 80 American, British and Canadian periodicals in the humanities, social sciences and general science areas as well as library review journals.

Each Book Review Digest record contains review excerpts that are chosen selectively to provide a balanced critical viewpoint, the reviewer's name, number of words in the review and bibliographic information on the publication where the review appeared. In many cases, the reviews suggest an appropriate audience for the book and compare it to other volumes.

In addition, such book publication details as the title, author, pagination, price, publication year, Dewey Decimal Classification number, ISBN and Library of Congress number, and an abstract of the book's contents are included.

Book Review Digest has long been a standard reference work in libraries, and with its debut on IQuest it is available online through CompuServe as well. A few tips will make your online search more efficient and productive.

To access IQuest, type GO IQUEST. During May 1987 all search charges for Book Review Digest, except for base connect charges, are waived. During any other month, there is a search fee. The exact amount of that fee depends not on the time you spend in the database (regular CompuServe connect fees are still in effect) but rather on the number of searches you perform. IQuest will periodically display the charges as they accrue so there are no surprises.

The introductory IQuest menu includes search tips, pricing, a directory of the more than 800 databases available and other information. There are two methods you can use for searching. The first, called IQuest-I, guides you through a series of menus that defines your topic of interest. IQuest then determines which database is right for your search. If you already know the database you want to search, such as the Book Review Digest, select IQuest-II and bypass the menus.

If you select IQuest-II, it will prompt you for the name of the database. Simply type in BOOK REVIEW DIGEST. You then will receive a choice of "Basic Searching" or "Field Searching." The former will prompt you to enter a subtopic, such as Science Fiction or Diet and Running. Then IQuest takes over and searches the Book Review Digest for all books on your topic.

A word of advice: Be as specific as you possibly can when listing your subtopic. The more general your search, the wider the selection of books you will receive, but they may not all be on the topic you want.

Let's assume you want to bone up on the latest techniques for better managing your company's external communications effort. By entering the subtopic Management, you'll receive 136 titles that are as diverse as *Disruptive Children, Disruptive Schools*, *Management and Labor in Imperial Germany* and *Organizational Stress and Preventive Management*. None of these is on target. By entering the subtopic Communications, you'll receive 13 listings, but again, they are varied and don't involve the subject you really want. External communications is also known as public relations, and this key word may work better. When that is entered, a listing of three titles comes up, all of which are applicable.

After the system searches your subtopic it will tell you the number of titles found. (It's a good idea now to capture the information either on disk or printer.) During May 1987, all search charges for Book Review Digest, except base connect charges, are waived. During any other month, for a $7 charge you can view basic information on the first 10 titles, which includes the book title, author, year of publication and bibliographic data on the location of the book reviews. To view each additional listing of 10 titles costs another $7.

If you want even more information on a particular title displayed, you can see the abstract (just follow the menus). There is a $2 charge for each abstract viewed. However, for May 1987 the charges to view abstracts have been waived. The abstract contains more detailed information with the actual excerpts of reviews and recommendations. *Tip:* Pay attention to the original listing of titles as it is displayed, because to view an abstract you must be able to type in the number of the book you want as it appeared in that listing.

In addition to "Basic Searching," you also can search Book Review Digest through "Field Searching." When you select this item from the IQuest menu, you will receive another menu asking if you want to search by subject, title, person, publisher, journal name or publication year. Obviously, this method is ideal if you already know the title or author of a book or want to search all books by one publisher on a certain subject.

When your search is completed, your total charges will be displayed and fully explained. Remember, this only includes the IQuest surcharge and does not include the regular CompuServe connect-time charges or any applicable communications surcharges. During May 1987, all search charges for Book Review Digest, except for base connect charges, will be waived.

One unique feature of IQuest is the real-time help that is available. If you find you are hopelessly lost or just need an answer to a quick question, type SOS at nearly any IQuest prompt and an IQuest researcher will come to your assistance.

—Cathryn Conroy

What's Going On?

If you want to know what's going on around CompuServe, check into *Online Today Electronic Edition*. Here you'll find constantly revised news for and about the CompuServe community. GO OLT-50 from any prompt on the CompuServe Information Service.

ONLINE TODAY

How to Manage Squeezed Files

My wife is the grand champion at packing a suitcase.

I'm always amazed when I reach my destination and open my gear. There's usually a popping sound, as if something has just exploded, when the latch on the suitcase is opened.

And suddenly, the suitcase isn't packed any more. Thank goodness my wife knows how to compress five suitcases worth of clothes into one. I'd hate to lug five of the things through an airport terminal. One suitcase is enough, thank you.

The computer programming whizzes have come up with a similar method of packing computer programs and textfiles. The reason they developed the scheme is for the same reason suitcases were invented. You can get a lot in a little bit of space. For example, a program in its natural state might take up an entire floppy disk. But, if you squeeze it, it might take up only half of the disk, leaving room to put yet another program on the other half.

The squeezed file has found wide acceptance on CompuServe where forum data libraries are becoming increasingly filled with this type of file. Such files take up less memory in the forum data libraries, but for the user, they have a more important function.

In a nutshell, it is faster to download a squeezed file than one that is not squeezed. And when you are downloading files, time is money.

But forum administrators report there is considerable befuddlement about squeezed files, particularly among new users. For example, they may download a particular program from a forum data library and try to run it, only to find that the program won't run as is. They often do not know that the file they downloaded is a squeezed file and that it has to be unsqueezed before it will work.

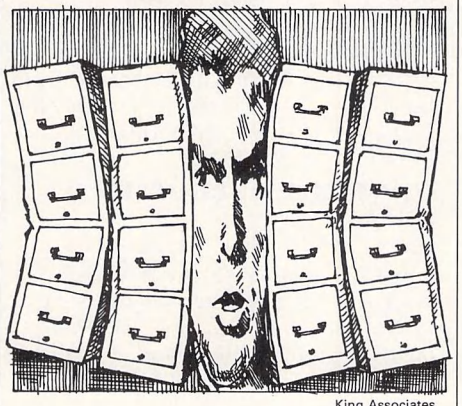
Fortunately for CompuServe users, every forum that offers squeezed files also offers a program to unsqueeze those files. (My word processor's spelling program says there is no such word as unsqueeze. Forgive me, Noah Webster.)

You can generally tell when a file is a squeezed file by looking at the filename extension, the three letters that follow the period in the file's name.

For example, in the Macintosh Forums, packed files have the extension of .PIT because the program that unsqueezes those files is called PACKIT.BIN, which is available in Data Library 4 of the Macintosh Users Forum (GO MACUS).

In the IBM forums (GO IBMNET), and forums where IBM compatibles are featured, most of the squeezed files have an extension of .ARC (for "archived"). Once you download one of these ARC files, you'll need a program such as ARC-E.COM or ARC512.EXE to unsqueeze it before you can run it, if it is a program, or to read it, if it is a textfile. Those two programs are available in Data Library 2 of the IBM New Users Forum (GO IBMNEW).

Here is a rundown of some of the other ways files are packed on other forums:



King Associates

- The Apple II Forum (GO APPLE) data libraries contain files ending in .BNY, which must be unpacked with BI2DWN.EXE found in Data Library 10. Files ending with .LBR must be expanded with programs—the ALU utility found in Data Library 10 as file ALU205. EXE. Rules on whether files should be squeezed or uploaded in Binary II are in the file BNYTWO.HLP in Data Library 10.
- In the Epson Forum (GO EPSON), several kinds of squeezed files are used. Files with a Q in the middle of the extension, such as .DQC or .TQT, must be unsqueezed with a program called USQ.COM. Files in libraries, similar to squeezed files, need DE-LBR or NULU to "unlibrary" them. If the extension is .LQR, you'll need both a program to "unlibrary" and "unsqueeze."
- In The Atari 16-bit Forum (GO ATARI16) squeezed files have the extension .ARC. Programs called ARC.TTP or ARC.ARC files are used to unsqueeze the files.

There are more, but don't let the plethora of extensions and programs confuse you. Once you settle into the routine, you'll find that you'll have to learn how to use only one, or possibly two, ways to unpack files for your own computer. And unpacking is usually quite simple.

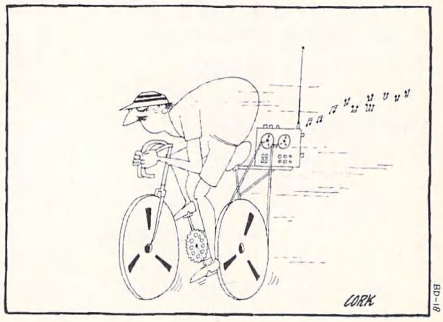
For example, let's say you have an IBM or compatible (as I do) and you download a file called RACHET.ARC. The description says it is an exciting, new computer game based on the life of an auto mechanic. The file description also says that RACHET.ARC contains two files—RACHET.EXE (the program) and RACHET.DOC (the instructions for playing the game.

After downloading RACHET.ARC, you'd simply follow the instructions for using ARC-E.COM or ARC512.EXE. I use ARC-E.COM, so I would type ARC-E RACHET.ARC. My disks start spinning and after a few seconds, RACHET.EXE and RACHET.DOC would be extracted from RACHET.ARC. Incidentally, RACHET.ARC is preserved in the process.

If I added the number of bytes in RACHET.EXE and RACHET.DOC, I would find that they add up to far more bytes than were contained in RACHET.ARC, the squeezed file. I don't pretend to understand how they do that, but then I don't understand how my wife packs my suitcase either.

If you're still confused about squeezed files, the administrators of CompuServe's computer-specific forums will be happy to help. Many of the forums contain textfiles in data libraries about downloading files. These textfiles usually give explanations of any squeezed files that are available in the forum. The forum administrator can point you in the direction of these help files if they are available.

David Peyton is a co-author of How to Get the Most Out of CompuServe. *His CompuServe User ID number is 76703,244.*



Education, Games Programs Uploaded

The data libraries in CompuServe's forums are filled with thousands of programs and textfiles. The following are a few of the files uploaded to the data libraries in recent months. For a more up-to-date list of uploads, check the "Uploads" columns in Online Today Electronic Edition by typing GO OLT-3700 at any CompuServe Information Service prompt. New columns are added twice monthly.

ARTIFICIAL INTELLIGENCE FORUM
(GO AIE100)

LISP Demo—An executable demo for Star Sapphire LISP on MS-DOS computers. File STAR.ARC in Data Library 2.

ADA Conference—The transcript of the ADA conference held on the AI Forum in January. ADA is the primary programming language used by the government, particularly the Defense Department. File ADA.TXT in Data Library 6.

AMIGA FORUM
(GO AMIGAFORUM)

Software Conference—An ASCII fil-containing the transcript of a conference with Trip Hawkins, president and founder of Electronic Arts. File 870121.CO in Data Library 2.

Sub Chase—A submarine hunt and destroy simulation for the Amiga. File SUBCH.ARC in Data Library 7.

ASHTON-TATE FORUM
(GO ASHFORUM)

Check Writer—An auxiliary program to be used with dBase III and dBase III Plus which produces a text string for a given numeric value. Great for writing checks. File AMTWRD.PRG in Data Library 1.

ASTRONOMY FORUM
(GO ASTROFORUM)

Measure Distances—An Applesoft BASIC program to calculate straight line distances between any two points on earth when the longitude and latitude of both places are known. File GRCIR.BNY in Data Library 2.

ATARI 16-BIT FORUM
(GO ATARI16)

Math Tutor—A mathematics program for elementary school age children that gives colorful and nonsensical rewards for correct answers to addition and subtraction questions involving numbers up to 10.

Screen Saver—An Atari-ST video screen saver program to turn off the video screen after two minutes of no activity on the keyboard, joystick or mouse. File STVIDE.PRG in Data Library 3.

CBM COMMUNICATIONS FORUM
(GO CBM)

Grade-Keeper—A menu-driven grade-keeping program that will handle 50 grades for each of 40 students per grading period. Does all averaging. File GRDBK.IMG in Data Library 5.

COMPUTER CLUB FORUM
(GO CLUB)

Victor Resources—All the known available resources for the Victor 9000 including software and support. File RESOUR.DAT in Data Library 11.

COLOR COMPUTER FORUM
(GO COCO)

Flight Simulator—A flight simulator game for the Color Computer. Fly from Boston's Logan Airport to various New England cities. File FLIGHT.BAS in Data Library 3.

COMMODORE ARTS AND GAMES FORUM
(GO CBMART)

New CAD Version—Steve Nye's all new version of his computer-aided design system for the Commodore 64. Not only does the file contain module updates and new individual features and improvements, but also it can now create RLE images for uploading and online viewing and convert RLE images into CAD high resolution and Doodle files. File CAD30.BIN in Data Library 12.

DR. DOBBS' JOURNAL FORUM
(GO DDJFORUM)

Windowed XMODEM—The protocol definition for WXMODEM, a windowed version of Ward Christensen's XMODEM protocol. WXMODEM is currently supported by the IBM PC, the Amiga and the Macintosh. The program was written with packet switching networks in mind. File WX.ARC in Data Library 0.

EPSON FORUM
(GO EPSON)

Postcard Printer—A simple postcard editor for printing 3.5 by 6 inch continuous form postcards. Compatible with Equity computers and Epson or IBM printers. File PCEDIT.ARC in Data Library 1.

Shuttle Lander—A game in which you land the space shuttle in the desert. File SPSHUT.BAS in Data Library 1.

FLORIDA FORUM
(GO FLORIDA)

Mouseography—The film history of everyone's favorite, Mickey Mouse. This textfile also contains a picture of Mickey when you print it out on an 80-column printer. File MGRAPH.TXT in Data Library 13.

GAMERS FORUM
(GO GAMERS)

Character Sheet—A textfile, which, when accessed by an ASCII printing program, will reproduce a *Dungeons and Dragons* character adventure sheet. The file is 80 columns wide by 64 lines deep. File ADVENT.SHT in Data Library 2.

IBM PC JUNIOR FORUM
(GO IBMJR)

Configure Expansion—A device driver to recognize expanded memory and added floppies in the IBM PCjr. Also sets video mode, video buffer and keyclick. File CONFIG.ARC in Data Library 1.

INVESTORS' FORUM
(GO INVFORUM)

Portfolio Manager—A portfolio management program for the IBM PC and compatibles. The program accurately computes the return on investment on the entire portfolio and on any individual issue. It handles buy, sell, short sale, cover, dividends, interest, splits, capital gains distributions, deposits and withdrawals. File PFROI.ARC in Data Library 1.

KAYPRO USERS' GROUP
(GO KAYPRO)

Jet Lander—A program for the Kaypro in which you maneuver an aircraft through takeoff, cruising and landing in less than ideal conditions. Written in MicroSoft BASIC. File JETSET.ARC in Data Library 6.

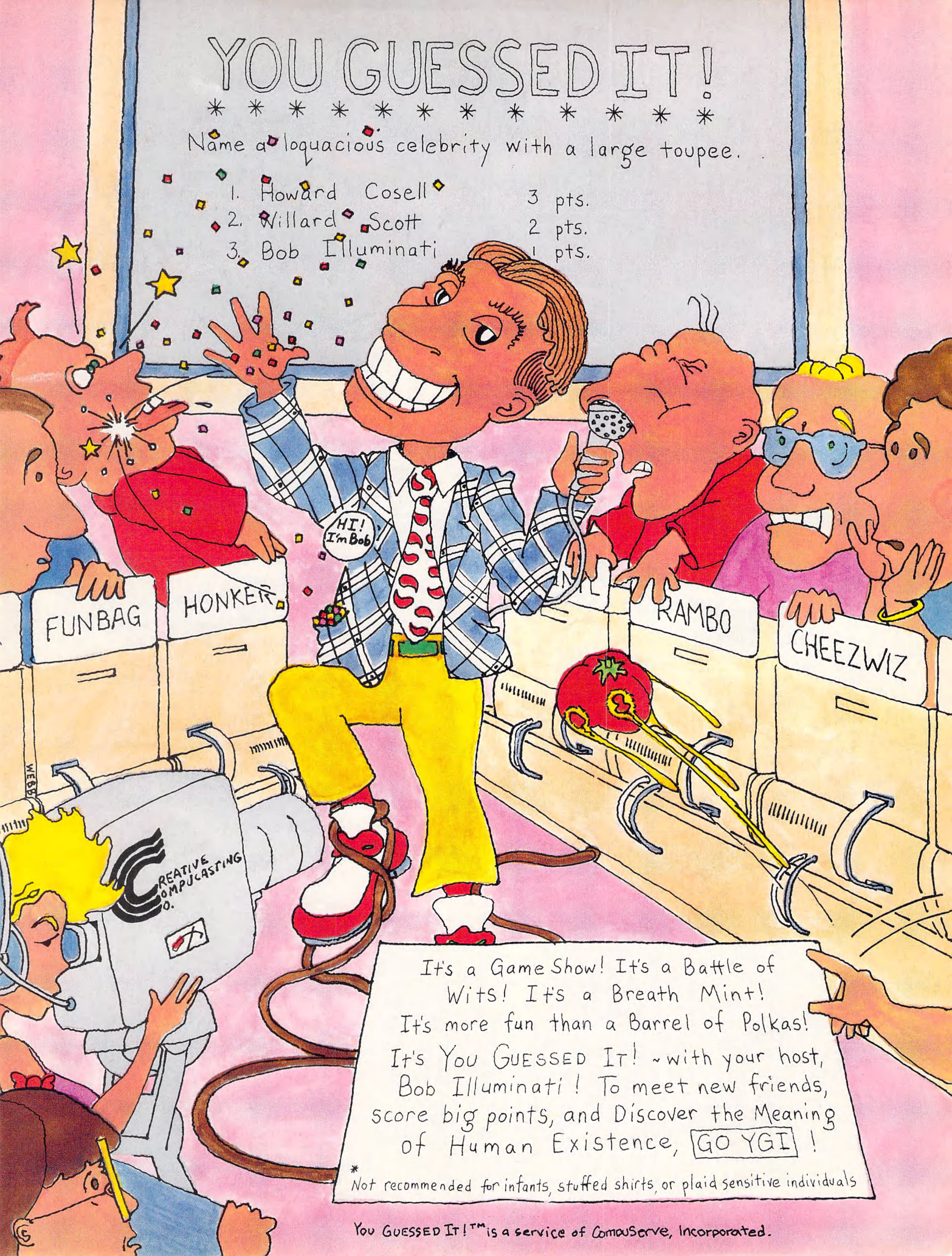
LOTUS 1-2-3 USER GROUP FORUM
(GO LOTUS 123)

Real Estate Analyzer—A Lotus 1-2-3 Release 2 or Symphony template for real estate analysis. File REALAN.ARC in Data Library 1.

MODEL 100 FORUM
(GO M100SIG)

Time Keeper—A small program for the Model 100 or 102 that dials a number from the ADRS.DO file and then makes an entry in the PHONE.DO file of the time of the call and total minutes of call. File DIAL.BA in Data Library 3.

David Peyton co-authored How To Get the Most Out of CompuServe. *His CompuServe User ID is 76703,244.*


YOU GUESSED IT!
* * * * * * * * * * * * * *
Name a loquacious celebrity with a large toupee.
1. Howard Cosell 3 pts.
2. Willard Scott 2 pts.
3. Bob Illuminati 1 pts.
HI! I'm Bob!
FUNBAG
HONKER
RAMBO
CHEEZWIZ
WEBB
CREATIVE COMPUCASTING CO.
It's a Game Show! It's a Battle of Wits! It's a Breath Mint! It's more fun than a Barrel of Polkas! It's YOU GUESSED IT! ~with your host, Bob Illuminati! To meet new friends, score big points, and Discover the Meaning of Human Existence, GO YGI !
* Not recommended for infants, stuffed shirts, or plaid sensitive individuals
YOU GUESSED IT!™ is a service of CompuServe, Incorporated.

Access hundreds of online reference sources from your home, office, home-office or Home Office.

With IQuest — CompuServe's research annex featuring over 700 publications, databases and indices.

No matter when or where your need for information occurs, IQuest accommodates. Access the leading databases of: DIALOG, Bibliographic Retrieval Service (BRS), NEWSNET, Pergamon INFOLINE (European), QUESTEL (French), Datasolve (British), and VU/TEXT (U.S. — Regional Newspapers). From school book reports to Wall Street corporate acquisitions, IQuest takes online searching out of the minds of information scientists and returns it to the hands of information consumers.

A common place to look for not-so-commonplace reference resources.

IQuest taps electronic magazines, newsletters and databases that span the worlds of business and commerce, government and politics, research and development, advertising and marketing, news and analysis — even popular entertainment, sports and lifestyle publications. Consult a complete alphabetized index online — GO IQUEST.

Information as you like it: bibliographic, abstracted, full-text.

All IQuest databases include bibliographic references. Scholarly abstracts accompany hundreds of others. And you can retrieve full-text for over 250 more. Canvass hundreds of thousands of pages of data. Pinpoint the very information that makes a case, solves a problem, or broadens input on a complex issue. Eliminate long hours of library research. Avoid frustrating blind alleys. Reclaim time to evaluate what you recover.

No learning curve. Learn to use IQuest straightaway.

With a few, simple menu-supported steps you can perform a search on any one of the hundreds of databases IQuest encompasses. You provide keywords that describe what you're looking for. Then you just watch. IQuest selects an appropriate database (unless you indicated one). It automatically translates your search terms into commands recognized by the selected database. It logs you on, performs the search, logs you off and returns the results.

Tackle electronic research with a FREE printed guide.

For more information about IQuest, request CompuServe's FREE 8-page guide to the service online. It includes command summaries, search tips and a comprehensive database index. To order, GO IQUEST at any ! prompt and select "More Information About IQuest" from that menu listing.

Want to write and reason more authoritatively? Want to instill more confidence in your decisions? Discover IQuest on CompuServe. It's reference with a difference!

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Look for special savings on selected databases each month.

IQuest℠ is a service mark of CompuServe Incorporated.
IQuest℠ provides access to a service of Telebase Systems, Inc.

GO EBB or circle 11 on the Reader Service Form.

Search a Digest of Book Reviews Without Search Charges* in May

BOOK REVIEW DIGEST

Found any good books lately? Automate your search with *Book Review Digest*. A service of the WILSONLINE® Information Service. Available without search charges* to CompuServe subscribers through IQuest during May.

From the reference racks of major libraries...to the personal computer screens of a network nation. *Book Review Digest* puts the titles, reviews and cross-references from over 26,000 fiction and non-fiction works within reach of readers everywhere. The listings, compiled annually since 1905, are available electronically back to 1983.

The index draws from over 80 American, Canadian and British periodicals. And spans the humanities, social and general science areas.

- **Search by *topic.*** This menu-driven, procedure narrows available books and reviews by topic/subtopic.
- **Search by *field.*** This keyword search broadens a list of works by a favorite author, on a particular subject, through a certain publisher, or in a favorite journal.

Minutes online replace hours in the stacks. Take advantage of this exclusive offer from WILSONLINE®, IQuest and CompuServe during May to focus research or plan future reading.

To access BOOK REVIEW DIGEST, type GO IQUEST at any online prompt.

* Search/retrieval charges for *Book Review Digest* are waived during the entire month of May. Base connect charges are in effect.

For More Business Information

To obtain more information about capabilities offered to CompuServe's business information customers, contact the CompuServe branch sales office nearest you:

Phoenix, Ariz.
602/997-4422
Irvine, Calif.
714/752-7240
Los Angeles, Calif.
213/216-5867
San Francisco, Calif.
415/777-2737
Santa Clara, Calif.
408/727-1468
Denver, Colo.
303/629-5514
Westport, Conn.
203/222-1853
Washington, D.C.
703/391-0010
Miami, Fla.
305/264-6094
Atlanta, Ga.
404/231-1440
Chicago, Ill.
312/782-5409
Indianapolis, Ind.
317/635-9686
Louisville, Ky.
502/585-4016
Boston, Mass.
617/235-0772
Detroit, Mich.
313/362-1860
Minneapolis, Minn.
612/338-5678
St. Louis, Mo.
314/241-0700
Parsippany, N.J.
201/898-1944
New York, Commercial
212/486-2440
New York, Financial
212/668-0471
Cincinnati, Ohio
513/771-8111
Cleveland, Ohio
216/241-6818
Columbus, Ohio
614/792-1301
Dayton, Ohio
513/223-6875
Toledo, Ohio
419/243-2600
Philadelphia, Pa.
215/563-7607
Pittsburgh, Pa.
412/391-8845
Memphis, Tenn.
901/452-8251
Dallas, Texas
214/953-0207
Houston, Texas
713/237-8582

Business Briefs

ENS Adds OTC NewsAlert

In addition to tracking news from the Associated Press state and national wires and *The Washington Post*, you may clip company news from OTC NewsAlert, now available in the Executive News Service.

OTC NewsAlert allows retrieval of over-the-counter securities news by using keywords, including company names, ticker symbols (when available), SEC forms earnings reports and initial public offerings.

OTC NewsAlert, offered via ENS as an Executive Option product, will clip stories only in the Financial News category. Stories continually come across the OT wire Monday through Friday. To access NewsAlert, type GO ENS.

Lotus Graphics Forum Debuts

Lotus Development Corp. has introduced a new CompuServe Information Service forum supporting Lotus graphics software.

Products discussed in the forum include Lotus Graphwriter, Lotus Freelance and Freelance Plus. These products improve the graphics capabilities of Lotus' popular 1-2-3 and Symphony.

Values from spreadsheets may be transferred directly to the graphics programs, simplifying the production of business graphics. To access the Lotus Graphics Forum, type GO LOTUS.

Investors' Forum Hosts Contests

The Investors' Forum introduces an ongoing series of trading and portfolio selection contests to interest stock/mutual fund investors, and index and stock option traders.

Participants are given a hypothetical stake of money and are asked to make "investments" to increase the value of their portfolio.

Unlike many such contests, the Investors' Forum allows buying and selling during the holding period to improve the performance of your portfolio. To access the Investors' Forum, type GO INVFORUM.

Javelin Users Forum Available

The Javelin Users Forum, sponsored by Javelin Software Corp., is available on the CompuServe Information Service.

This new forum provides information and support for Javelin, a financial analysis software product that runs on IBM personal computers and compatibles.

General business applications, industry specific models, macro language clinics and other Javelin products will be supported and discussed in the forum. To access the Javelin Users Forum, type GO JAVELIN.

Making a Move

Online Services Help Professionals Relocate

Suppose you or your spouse have been looking for a new job and have received firm offers from two companies, both based in cities you know nothing about. Other things being equal, how in the world can you decide? And what's to become of that modern phenomenon, the "trailing spouse," who also will need a new job? The answers to these and other troubling relocation questions are as close as your modem. Online resources can provide a wealth of information about geographic areas, job openings, entire industries and specific companies across the United States.

An excellent place to start is IQuest, which provides entry to hundreds of databases from which to gather information about job opportunities in the two target cities. If you're an IQuest novice user and want more information before using its services, you may want to order a free printed guide and database index by typing GO IQUEST at any prompt and selecting "More Information About IQuest" from the menu. By using the database index or the online database directory, you will be able to go directly to the database you want by selecting IQuest-II, and typing the name of the database. All searches cost $7 and a few databases carry an additional surcharge, which is clearly indicated online prior to the search.

If your field is advertising/public relations, banking or finance, the federal government, or computers, IQuest offers US Employment Opportunities in those areas (listed under Miscellaneous). For contacts in construction, manufacturing, retailing, services or wholesaling, don't overlook the Electronic Yellow Pages databases (listed under Industry).

One database you might want to check to list or find resumés is the IQuest Career Placement Registry for experienced personnel (listed under General Business in the index) or for students (listed under Miscellaneous).

Through databases listed under Regional Newspapers, IQuest allows you to retrieve articles from 30 city newspapers, from Boston to Dallas to Anchorage. IQuest also offers industry newsletters and reports for fields ranging from robotronics to micropublishing to manufactured housing (listed under general categories).

In addition to the information available from IQuest, you can find out more about the place you may be moving to by typing GO DEMOGRAPHICS and selecting either The Neighborhood Report or the US-State-County Report. The Neighborhood Report provides demographics for particular ZIP codes—information that is especially useful if you're considering moving to a specific suburb.

The report offers current statistics on the total population in that area, average age and percentage of people in nine age groups, average income and percentage of people in six income brackets, percentage of people in 11 occupational categories, and percentage of occupied housing units built over the past years. You can also learn the average home value, average rent, and the number of single people and families—all for a $10 charge per ZIP code.

Comstock Inc./Michael Stuckey

For the same information on a larger geographic area, such as the county surrounding each target city, type GO DEMOGRAPHICS and select the US-State-County Report. The $10 charge is the same no matter how large of an area you specify.

The Demographics menu also offers SUPERSITE reports for subscribers with the Executive Option. This product offers more than 40 detailed reports on demographics and sales potential for specific businesses, such as appliance stores and restaurants. The charges range from $20 to $100 a report.

Executive Option subscribers also can use the Executive News Service (GO ENS) to set up a folder for current news clippings on a particular industry, company or location. ENS will gather news for you from *The Washington Post*, the Associated Press national and state wires and the OTC NewsAlert, a source of news on over-the-counter traded companies. You choose one news source or all of them, select the news categories and type in words or phrases related to the position you seek or developments in the industry that might lead to a position for you, such as the opening of a new branch office. ENS will continuously scan the news wires for these categories of information. ENS carries a $15 per hour surcharge at all times.

For personal help in finding a new position at no charge other than online time, why not ask DR. JOB (GO DRJ)? DR. JOB is Sandra Pesmen, features editor for *Crain's Chicago Business*. She answers work-related questions and offers Career Tips on common problems. One recent Career Tips article, "Facing the Trauma of a Corporate Move," advised that counseling often can help reduce the stress caused by such a move.

You can also ask DR. JOB personal work-related questions through the DR. JOB Feedback area, located on DRJ-1. Her insight might help you decide which of the two cities offers the best opportunity, or she can provide specific ideas on conducting a job search in either community—all before you call the moving van!

—Linda Barr

Could *Your* Business be Affected by Happenings in the Computer World Today?

Find out in *Online Today Electronic Edition*. GO OLT-90 from any prompt on the CompuServe Information Service to get daily-updated computer news.

ONLINE TODAY

Super Modem™ 2400 Only $199.95 each

3 lot $196.95, 6 lot $194.95, 12 lot $189.95

The Communications Electronics Super Modem 2400 will send and receive full duplex data at 2,400, 1,200, 600 and 300 bits per second over your regular telephone line for only $199.95 each. (Order # SM2400-PA)

Communications Electronics Super Modem 2400 can operate 2,400, 1,200, 600,300 bps full duplex or half duplex over your regular voice grade telephone line. At 2,400 bps they are sync/async, over the switched network; CCITT V.22bis compatible. At 1,200 bps they are also sync/async over the switched network and are switchable between Bell 212 or CCITT V.22/V.23 compatibility. At 600 and 300 bps they are async over the switched network. At 600 bps they are CCITT, V.23 compatible and at 300 bps they are Bell 103 and CCITT V.21 compatible. The CCITT V.22 and V.23 compatibility makes these modems suitable for use worldwide.

The Super Modem 2400 automatically adjusts itself to match terminal's (or computer's) baud rate, parity and stop bits. The default setting is CCITT 2,400 bps but all parameters can be changed in the modem's non-volatile memory by using the extended "AT" command set. 11 status LED's are provided: Auto answer, off hook, high speed, DSR, RTS, DCD, TD, RD, RI, CTS and DTR. Switches are provided for constant carrier, holding DTR high, crossing pins 2 and 3, 11 bit characters and auto answer.

The modem is fully compatible with the Hayes® "AT" command set at all speeds and uses the new Hayes® 2400 commands for synchronous operation making the Super Modem 2400 compatible with virtually all IBM PC communications software. An internal speaker with software selectable volume is included. The Super Modem 2400 has an on-line help screen which shows communication parameters.

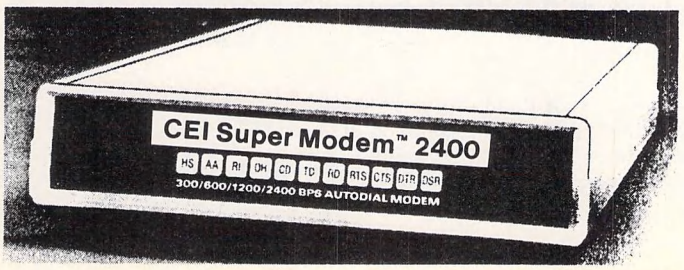
Super Modem 2400 Specifications

OPERATION: Full duplex sync or async on 2 wires
DATA RATES: Synchronous 2400 bps or 1200 bps; asynchronous 2400, 1200, 600 or 300 bps.
MODULATION: FSK and PSK
CHARACTER FORMAT (ASYNC): 10 or 11 bits including start and stop bits
EQUALIZATION: Automatic adaptive
DIAGNOSTICS: Self test, local and remote analog and digital loopback
DCE interface (stand alone models) EIA RS232C
VF interface 10 foot cable with RJ-11 jack. FCC approved
DIMENSIONS: 8½" x 6¼" x 1½" – weight 1.5 lbs. (0.69 Kg.)

Hayes is a registered trade mark of Hayes Microcomputer Products Inc.

Order your Super Modem 2400 today.

5 year warranty



FLORA

GO EBB or circle 13 on the Reader Service Form.

Super Disk Diskettes

Super Disk™ celebrates their anniversary with super special pricing on Super Disk brand 100% certified error-free and drop-out free computer diskettes. Stock up now at these super special prices. Order only in multiples of 100 diskettes.

SAVE ON SUPER DISK™ DISKETTES Product Description	Part #	Super Disk price per disc ($)
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5¼" Same as above, but bulk pack w/o envelope	6437-PA	0.29
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Prentice P-212ZX

External Modem Handles Speeds up to 1200 Baud

Prentice Corp.
266 Caspian Dr.
P.O. Box 3544
Sunnyvale, CA 94088-3544
408/734-9810

Computers: Any computer or terminal equipped with an RS-232 serial port.
Operating System: Not applicable.
Features: 110/150/300/1200 bps (bits per second) asynchronous operation conforming to Bell 103/212 standards; auto-dial and auto-answer capabilities; automatic voice/data switching; rotary or tone-dialing; automatic audio speaker control; call-progress detection; compatible with "AT" ("attention") command set of Hayes Smartmodems.
Options: None.
Model Tested: P-212ZX with Compaq Deskpro on COM1 (IBM Asynchronous Communications Adapter) and COM2 (STB RIO Plus II multifunction card) ports; running PC-DOS 2.10 and various Smartmodem-compatible communications programs.
List Price: $325

Reviewed by Ernest E. Mau

The Prentice P-212ZX external modem can be hooked up to any computer's RS-232 serial port and is basically a plug-in-and-go unit. It works with standard non-electronic telephones. It connects to key-type phones via an RJ35 connector, a TT Systems' Super Connector V or an RJ12 or RJ13 jack. It connects to single-line phones via an RJ11 jack. The modem's "wall" socket is an 8-pin modular receptacle that accepts 4-, 6-or 8-wire modular cords as needed.

Automatic voice/data switching depends on the telephone line connection. For key phones using an RJ35 connector, switching is inherent whenever the telephone set goes off hook. In other situations, switching requires a single-line telephone set connected to the modem's "phone" receptacle.

The P-212ZX uses the "attention" or "AT" commands of Hayes Smartmodems demanded by most communications software packages. I ran it with several programs designed for Hayes-compatible modems, including CompuServe's Professional Connection, Norton-Lambert's Lync, VM Personal Computing's Relay Gold and LCS/Telegraphics' TeleVision. The only problem was changing some scripts because the P-212ZX recognizes only uppercase commands, unlike my other modems that accept both upper- and lowercase.

The P-212ZX has only two LED indicators. One illuminates when power is applied (the modem has a power switch); the other illuminates when the modem detects a carrier signal from a remote system. I missed having Transmit Data and Receive Data indicators flashing because I couldn't stand across the room and still see whether a data transfer was in progress. It is a minor point and probably wouldn't bother most people, but I had to change my work habits slightly.

The P-212ZX has just four DIP configuration switches. They are accessed by poking a straightened paper clip or other probe through ventilation slots on the modem's side. External switches would be easier to reset, but at least the modem doesn't have to be disassembled to get at the internal switches.

The configuration switches correspond to the first four switches of a Hayes modem and control the Data Terminal Ready (DTR) signal line, terse versus verbose modem responses, enabling or disabling of responses and enabling or disabling of command echoing.

The P-212ZX does not provide the other four switches common to Hayes-compatible modems. Enabling and disabling of auto-answering and controlling operation of the Data Carrier Detect (DCD) signal line are done by software commands setting the S0 and S18 registers instead of setting switches. The functions of Hayes switches 7 and 8 are preset as always enabled and aren't controllable.

There are potential conflicts with some software caused by not having a full set of switches, but few programs would be affected. Yet having no hardware switch to disable auto-answering is disturbing.

By default, the modem powers up or resets with auto-answer enabled, which is fine for those who want modems to answer incoming calls. But many of us use modems strictly as outgoing devices and never want them answering calls, especially voice calls that come in on the same line. Setting the S0 register using a communications program involves extra steps and is effective only until the modem's power is cycled or a program issues an "ATZ" reset command. Either makes the modem immediately revert to auto-answer operation.

A notable difference between the P-212ZX and other modems is that this unit does not break the connection on receiving a "+++" sequence. Instead it switches to command mode and lets the user do things like check the communication parameters. On entering an "ATO" (online) command, the modem returns to communications mode at the point of interruption. However, it tends to generate a spurious character on returning to communications, which may interfere with some remote operations. The "+++" must be followed by an "ATH" command to manually hang up.

The P-212ZX is one of the cleanest communicating modems I've used. Many modems reviewed for *Online Today* have demonstrated disturbingly high error rates, but not this one. There were only two transmission errors through five megabytes of ASCII, XMODEM and CompuServe "B" protocol file transfers. There were almost no spurious characters generated on connecting to or disconnecting from a remote system or during periods the modem sat idle while connected to services. Communications reliability, noise immunity and freedom from radio frequency interference were as good as with any modem I've used.

With excellent communications, only the auto-answering problem keeps me from making an unqualified recommendation. With an auto-answer switch or auto-answer turned off by default, the P-212ZX would be an excellent modem.

Ernest E. Mau, a full-time free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 300 articles on microcomputer products and applications.*

Trademarks: Compaq and Deskpro (Compaq Computer Corp.); CompuServe and The Professional Connection (CompuServe, Inc.); IBM, IBM PC and PC-DOS (International Business Machines Corp.); Lync (Norton-Lambert Corp.); Relay and Relay Gold (VM Personal Computing Inc.); RIO Plus II (STB Systems Inc.); Smartmodem (Hayes Microcomputer Products Inc.); Super Connector V (TT Systems Corp.); TeleVision (LCS/Telegraphics).

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Disk Defender 3.0

Protects Hard-Disk Data

Director Technologies
Technology Innovation Center
906 University Pl.
Evanston, IL 60201
312/491-2334

Computers: IBM PC, PC-XT and compatibles.
Operating System: PC-DOS or MS-DOS 2.0 or later.
Media: Software supplied on one double-sided floppy diskette.
Copy Protection: Software not copy protected.
Required Peripherals: None.
Other Requirements: ST506 or ST412 compatible hard-disk drive and controller card (nearly all PC and PC-XT drives meet this requirement).
Optional Items: None.
System used for test: 704K Heathkit PC-150 computer with high-resolution color monitor, two double-sided diskette drives, two 20MB hard disks and V-20 processor; running MS-DOS 2.13.
List Price: $240

Reviewed by Hardin Brothers

Disk Defender is an unusual product. Its main purpose is hard-disk data protection through both hardware and software, but it also solves a major problem inherent in DOS hard disk management.

The Disk Defender hardware is a short-slot card and small control box. The physical installation process is simple. Set some switches on the Disk Defender card, put it in a computer slot, and run cables from the hard-disk controller to the Disk Defender and from the Disk Defender to the hard-disk drive. Finally, connect a cable and the control box to the back of the Disk Defender card.

Once that is done, you can write-protect all or part of the hard disk merely by throwing a small switch on the controller box. With the switch in its full-protect position, any attempt to write to the hard disk will fail. The switch becomes an analogue of a floppy disk write-protect tab.

If this were nothing more than a write-protect tab for a hard disk, it would be valuable to software developers perhaps, but to few others. However, Disk Defender is a complete data security philosophy implemented in both hardware and software.

Installation of the complete Disk Defender system begins with a full backup of a hard disk onto floppy diskettes or tape. Next, run CHKDSK.COM and FDISK.COM to obtain some information needed during the installation process. Finally, a batch file on the Disk Defender distribution diskette takes you through the installation process automatically, prompting you whenever it needs special information.

When finished, you have a hard disk that is divided into two parts and a printout of switch settings for the Disk Defender card. Disk Defender partitions the hard disk into two logical drives, C and D, of any size you wish, which most versions of DOS normally do not allow.

You then can set the Disk Defender's control switch so it has three protection levels: write-protect the entire hard disk, write-protect one logical drive only, or make the entire hard disk available for writing and updating files. The choice is made simply by moving a toggle switch on the Disk Defender control box beside the computer.

Once drive D is installed and protected by Disk Defender, you have two final options: You can either use the new logical drive to hold important files that can be modified only after throwing the toggle switch, or use it to hold daily backups of main drive C. The second option requires you to enable writing to drive D at the end of the day, back up drive C to drive D, and reset the switch to protect drive D until the next backup. Regardless of what operator or program errors occur when Disk Defender is protecting drive D, backups will be safe.

An added feature of Disk Defender lets you remove the control switch from your computer completely at any time. When you do so, drive D always will be write-protected, while drive C will be enabled for both reading and writing. If you share a computer with someone else, that person will not be able to destroy your data on drive D.

Another way to use the Disk Defender with drives C and D is to designate drive D for special files that rarely should be changed. Whenever a program needs to write to one of those files, set the control switch to enable the changes and reset the switch immediately afterward. Again, this hardware control can keep others from changing important files when they use your computer.

As a programmer, I also was impressed that the Disk Defender distribution diskette contains complete, commented source code, written in C, for most programs on the diskette. If you want to know how the system works or want to alter it for a specific purpose, all necessary information is included.

Other operating systems allow dividing a hard disk into separate logical drives, and the hard disk on one of my non-MS-DOS computers has write-protection I've found very useful. Disk Defender finally provides the same flexibility on an MS-DOS hard drive, making it more useful and safer.

Hardin Brothers is a writer, computer programmer and teacher living near Los Angeles. He is a frequent contributor to several computer magazines. His CompuServe User ID number is 72165,735.

Trademarks: Heathkit (Heath Co.); IBM, IBM PC, PC-XT and PC-DOS (International Business Machines Corp.); MS-DOS (Microsoft Corp.).

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Electronic Edition Hardware Reviews

The following hardware reviews are available this month on *Online Today Electronic Edition* by typing GO OLT-220 at any CompuServe Information Service prompt.

Victor Technologies' VPC II Computer
Manufacturer: *Victor Technologies.*
Computer: *VPC II (IBM PC-XT compatible).*

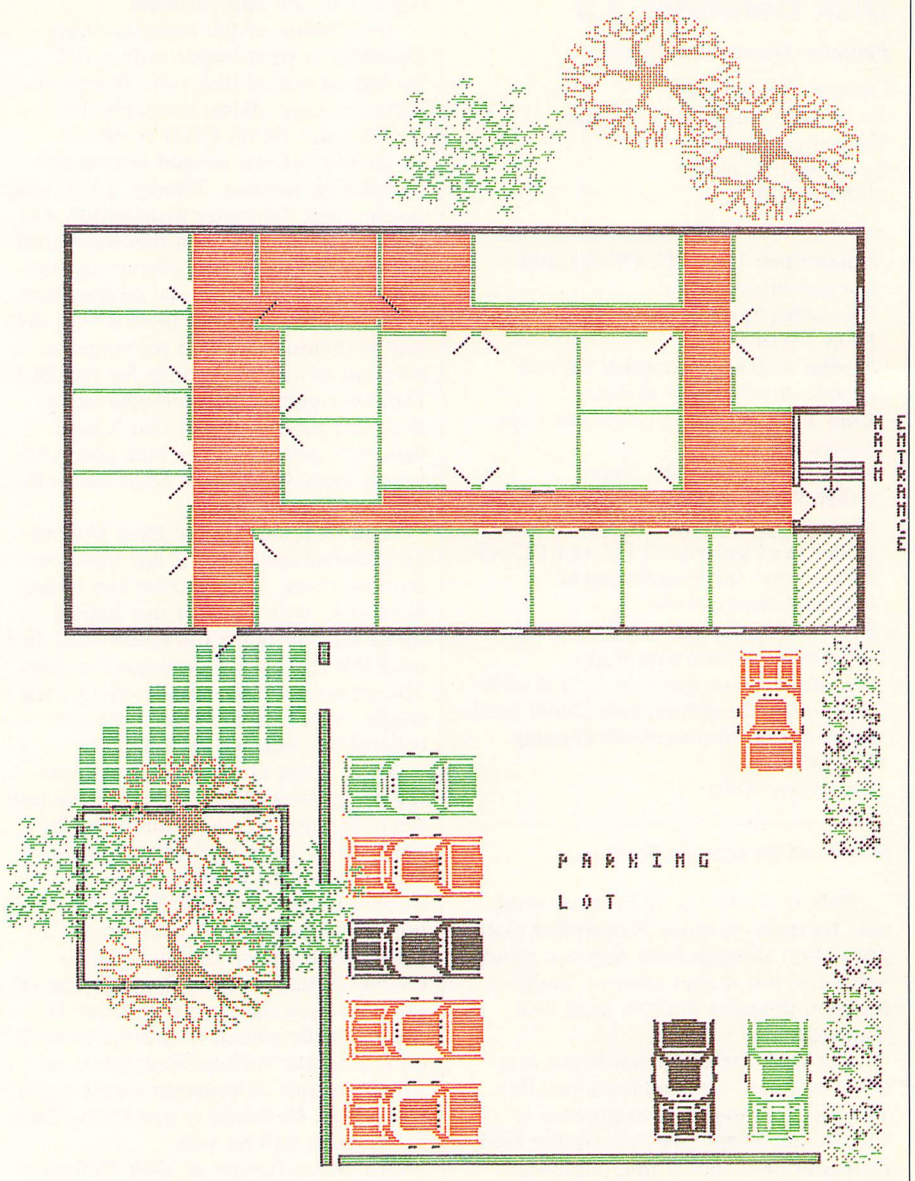
FiveStar XL Computer
Manufacturer: *FiveStar Electronics.*
Computer: *FiveStar XL (dual-speed IBM PC-XT compatible).*

TeleVision

Makes, Sends and Receives Graphic Images

LCS/Telegraphics Inc.
261 Vassar St.
Cambridge, MA 02139
617/547-4738 or 800/437-0036

Computers: IBM PC, PC-XT, PC-AT and compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires at least one double-sided diskette drive.
Copy Protection: None.
Required Peripherals: Color or graphics monitor with CGA graphics board (EGA boards supported in CGA mode only); Hayes Smartmodem, AT&T 4000 modem or compatible modem; mouse or tablet input device (supports Kurta Penmouse, Kurta Tablets and Mouse Systems and Microsoft compatible mice).
Other Requirements: Minimum 256K RAM.
Optional Items: Additional diskette drives or hard disk; additional memory; graphics-capable printer (supports more than four dozen 9-pin and 24-pin printer brands and models); plotter (supports HI DMP-29, HP 7470 and HP 7475A); Polaroid Palette image recording system.
System used for test: 640K Compaq Deskpro Model 2 with two diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), bus-type Maynard Mouse, serial Torrington Manager Mouse, Amdek Color 722 RGB monitor, Video-7 VEGA Deluxe Enhanced Graphics Adapter, Epson FX-85 and Toshiba P351 Model 2 printers and USRobotics Courier 2400 modem; running IBM PC-DOS 2.10.
List Price: $99



Reviewed by Ernest E. Mau

TeleVision (version 1.0) extends LCS/Telegraphics' popular TelePaint graphics into telecommunications for quick and efficient image exchange between computers.

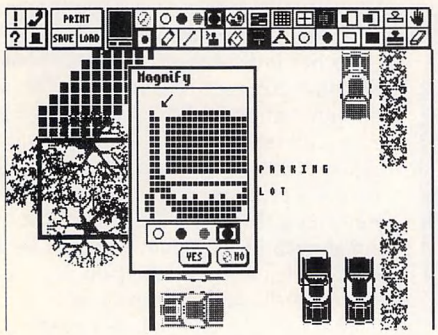
TeleVision is controlled through a logically organized icon and pull-down menu system, plus the F1 through F10 function keys. A mouse, tablet or equivalent pointing device is required.

The graphics screen is virtually identical to TelePaint's working screen. Anyone familiar with TelePaint knows how to use TeleVision's graphics editor and has the same line, box, circle and freehand drawing functions. Choices of pen sizes, colors, patterns, palettes, airbrushing, filling, gridlocking and other functions remain intact. Magnified pixel-by-pixel drawing or editing also is provided. While no TelePaint features are lost, printer support and font selections have increased dramatically.

A utility that captures and imports screens from other applications is provided, but like TeleVision, it is limited to CGA displays and won't work with EGA applications. I consider CGA graphics too confining; TeleVision needs EGA capability to be practical.

The communications screen sets TeleVision apart. It handles automatic dialing, logon and working scripts, ASCII and XMODEM transfers and other operations needed to send or receive text, binary program files and special image files. It even provides data compression to minimize connect times when recipients also use TeleVision.

Sending an image is simple. Select the item to be sent, the transfer type and whether compression is wanted. Besides disk files, TeleVision can send graphics from its full-screen "canvas" or a partial-screen "stamp." Receiving graphics is interesting because TeleVision automatically detects an incoming image, asks for a file name and permits expansion onto the graphics screen.



Though not visible while being received, finished images can be viewed by switching to the graphics screen.

Besides its own images, TeleVision creates, sends and receives high and medium resolution "RLE" images like those in CompuServe's Weather Maps (GO WEA), CB Pictures (GO CB) and Picture Support Forum (GO PICS). Captured and saved as TeleVision "stamps," such images can be edited. Unlike CompuServe's VIDTEX software that displays but doesn't capture images, TeleVision doesn't display RLE images in real-time and allows viewing them only by switching to the graphics screen. Displaying RLE image stamps without clipping requires that top and bottom graphics screen menus be toggled off with the F10 key, which could have been clearer in the manual.

A feature I wasn't equipped to test connects two TeleVision systems for "mouse-to-mouse" control. Either user can control both systems to work with a drawing appearing on both screens, so two people can develop a drawing jointly.

Product registration is through the Delphi system, and a script is supplied to call it free of connect charges. After registration, new users should practice retrieving sample images from that system.

As grand as it sounds, TeleVision is flawed. CompuServe nodes normally expect logons and communication with seven data and two stop bits (7-2), but XMODEM protocol requires eight data bits and one stop bit (8-1). Unlike most communications programs, TeleVision cannot switch formats when XMODEM is activated, yet accessing CompuServe with an unfiltered 8-1 format results in garbled screens.

Setting TeleVision's high-bit filter cures screen trashing with 8-1 data communications but leaves compatibility problems for sending and receiving images via CompuServe. While I sent and received graphics via EasyPlex, forum messages, data libraries and InfoPlex, things weren't always straightforward.

Images placed in an EasyPlex message using 7-2 format and "line" transmission could be retrieved via simple readouts with either 7-2 or 8-1 formats but could not be downloaded with XMODEM. Images placed with 8-1 filtered data and line transmission could not be retrieved and decoded with any format or method. Images uploaded with XMODEM could be retrieved only by XMODEM downloading.

Since data formats cannot be switched reliably on the fly, there can be confusion, false starts and lost time if one is in the wrong data format when deciding to send or receive an image by a particular method. Exchanges would be easier if TeleVision provided automatic switching to 8-1 format on selecting XMODEM. Luckily, RLE image capturing works with both 7-2 and 8-1 data formats.

TeleVision functions well as a non-graphics communications system if the F10 key is used to switch from the normal communications screen to a text screen once a connection is established. Otherwise, the "small" on-screen graphics text font (the only one providing 80 characters per line) is difficult to read and displays only uppercase. It also would help non-image communications if XMODEM could handle non-binary modes like other programs.

TeleVision is a good value and a novel program for graphics communications. But it doesn't yet go far enough for users of enhanced graphics and other "power users."

Ernest E. Mau, a full-time free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 300 articles on microcomputer products and applications.*

Trademarks: Alpha-10, IOMEGA and Bernoulli Box (IOMEGA Corp.); Compaq aand Deskpro (Compaq Computer Corp.); CompuServe, EasyPlex, InfoPlex and Vidtex (CompuServe, Inc.); Courier 2400 (USRobotics Inc.); Epson and Epson FX (Epson America Inc.); IBM, PC, PC-XT, PC-AT and PC-DOS (International Business Machines Corp.); Manager Mouse (The Torrington Co.); MS-DOS (Microsoft Inc.); Smartmodem (Hayes Microcomputer Products Inc.); TelePaint and TeleVision (LCS/Telegraphics Inc.); VEGA Deluxe (Video-7 Inc.).

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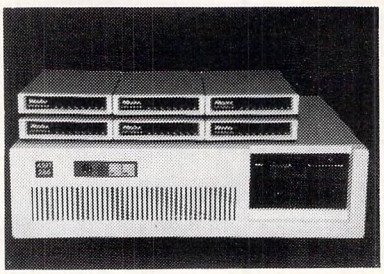

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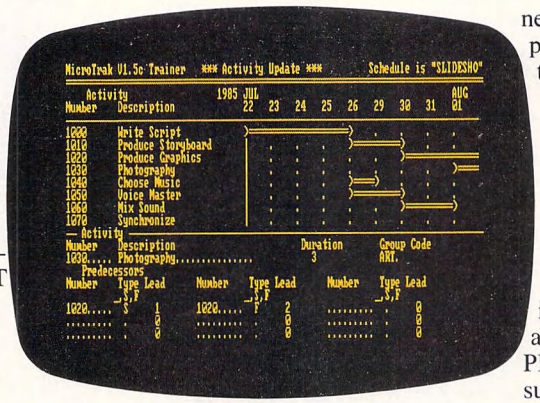
MicroTrak

Tracks Your Projects

SofTrak Systems
1977 West North Temple
P.O. Box 22156 AMF
Salt Lake City, UT 84122
801/531-8550

Computers: IBM PC, PC-XT, PC-AT and compatibles.
Operating System: MS-DOS or PC-DOS 2.0 or later.
Media: Requires two 360K diskette drives or one diskette drive and a hard disk.
Copy Protection: None.
Required Peripherals: Hard disk required for more than 1,500 activities.
Other Requirements: Minimum 128K RAM.
Optional Items: Printer and/or plotter.
System used for test: 640K Compaq Deskpro 286 with one 1.2MB diskette drive, one 360K diskette drive, one 20MB hard disk, Hercules Graphics Card, Quimax monochrome monitor and Hewlett-Packard LaserJet printer; running MS-DOS 3.1.
List Price: $595

Reviewed by Harry Green



It doesn't matter whether you're constructing a building, coordinating a missile project or developing software, a project has two essential ingredients: people and paper. In sheer bulk, the paper is usually predominant. Project managers produce schedules, reports, work assignments and responsibility charts. Once the paperwork is complete, something changes and it all has to be done again.

If excessive paper suggests mechanization, you're right, but a project management program doesn't make you a project manager any more than a word processor makes you a writer. If you're already acquainted with project management techniques, a program such as MicroTrak can save endless hours of drudgery.

There is a danger to computerized project-management tools; they can bury you in paper just because it is so effortless to produce. MicroTrak's report menu lists seven types of reports and provides so many variations that you have to be selective or you'll lose the main benefit of the system, which is simplifying project control.

For those with little project-management experience, the MicroTrak manual opens with a short treatise on the fundamentals. If you need the knowledge in those dozen pages, you'd better buy a book or take a seminar first because the concepts are far too complex to cover in a program guide. If you already understand project management principles, a tutorial introduces you to the program.

MicroTrak is menu-driven with provisions for entering resources, such as people or machines, that will be used in a project. You also can enter costs of resources and a calendar of work days and holidays.

Activities are entered on a screen that provides fields for adding preceding activities and showing the relationships between tasks. MicroTrak allows three kinds of relationships: finish-to-start (FS), start-to-start (SS) and finish-to-finish (FF). The FS relationship means that one activity must finish before another can start. SS means that an activity cannot start until another has started. FF means that both activities can take place simultaneously, but one cannot finish until another has finished. For example, when building a house, wall framing must finish before roof framing can start (FS). Wall framing must start before you begin applying insulation (SS) and must complete before siding can complete (FF).

These relationships differentiate MicroTrak from other project-management programs, many of which can't distinguish the three types of task relationships visually and must keep them in a side record. MicroTrak has no problem listing relationships because its schedule is displayed graphically in Gantt or bar-chart form.

Most project managers use the Program Evaluation and Review Technique to display task relationships. A PERT chart resembles a program flowchart with arrows connecting nodes in a network that graphically displays task precedence. If each node represents a task, an arrow leading from one node to another indicates that the leftmost task must complete before the next task can complete. By connecting nodes that represent the path of longest duration through the network, the critical path is determined. MicroTrak displays the critical path by highlighting tasks in its tabular display. The method is adequate, but lacks the clarity of a PERT chart, which MicroTrak doesn't support.

Whether PERT or Gantt charts are used to display project schedules, inevitable changes result in outdated paperwork. The effect ranges from inconvenient to hazardous. Schedules also must be revised periodically to document task completions. MicroTrak alleviates the drudgery of recompiling the schedule by providing a convenient form for task editing. Commands let you recompute the schedule after changes are made, calculate slack time and enter lead time between tasks. Resources can be added and rearranged, and milestones, which are significant events, can be assigned.

Higher management always wants reports, and MicroTrak is willing to oblige. A Gantt chart of the total project can be printed with the time scale expanded or compressed as needed to fit the level of detail desired. The program lists activities, resources and milestones, and it dissects the schedule to answer most questions the boss will ask.

MicroTrak is a valuable tool for a skilled project manager. Its schedules and reports will save hours of time and may lead you to think out the project in more detail than if you were doing it by hand. Its main shortcoming is its lack of PERT charting capability, but only managers accustomed to using that tool will feel the pain.

Harry Green is a free-lance writer from Portland, Ore. He is author of Automating Your Office *and* Local Area Networks. *A forthcoming book,* Handbook of Telecommunications, *will be published by Dow Jones-Irwin in 1985. His CompuServe User ID number is 70007,431.*

Trademarks: Compaq and Deskpro 286 (Compaq Computer Corp.); Hercules Graphics Card (Hercules Computer Technology); IBM, IBM PC, PC-XT, PC-AT and PC-DOS (International Business Machines Corp.); LaserJet (Hewlett-Packard Corp.); MS-DOS (Microsoft Corp.); MicroTrak (SofTrak Systems).

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MVP Spreadsheet+:

Financial/Modeling Software

Bell Atlantic Network Services
13100 Columbia Pike, D-2-0
Silver Spring, MD 20904
301/236-6294

Computers: IBM PC, PC-XT, PC-AT and compatibles.
Operating Systems: MS-DOS or PC-DOS version 2.0 or higher.
Media: Requires hard disk with at least 1.5MB of available storage capacity and at least one diskette drive.
Copy Protection: None.
Required Peripherals: None.
Other Requirements: Minimum 640K RAM.
Optional Items: 8087 math coprocessor recommended for increased speed.
System used for test: 640K IBM PC-XT with Hercules Graphic Card Plus, two diskette drives, Maynard 20MB hard disk and Okidata Microline 84 printer; running PC-DOS 2.1.
List Prices: $400 for spreadsheet; $195 for model compiler; $495 for spreadsheet and compiler purchased together.

Reviewed by William J. Lynott

When is a spreadsheet not a spreadsheet? When it is MVP, the new financial/modeling package from Bell Atlantic (one of seven regional companies resulting from the AT&T divestiture).

According to the folks at Bell Atlantic, MVP was created because even the best electronic spreadsheets don't do everything that advanced users need. MVP originally was developed strictly as an in-house package for use by Bell Atlantic executives. It turned out so well that they decided to make it available on the open market.

If you're an advanced spreadsheet user, you may have wished that your spreadsheet could "backsolve," working backwards from the solution to arrive at new inputs. Or you may have needed to spread totals to subaccounts such as annual totals to months without entering additional formulas into many cells. MVP does both jobs and a lot more.

Don't expect the usual grid of blank rows and columns when you fire up this program. MVP is a different concept from the basic electronic spreadsheet. To begin with, instead of building your model on a blank spreadsheet, you build it before you enter the spreadsheet. Using any word processor that can create standard ASCII files, you build the model using plain English statements in a script file. For example, if total sales for all divisions in your company were the sum of the individual divisions, you could express the relationship as "Total.p = Div1.p + Div2.p + Div3.p" with the suffix used to establish a column relationship.

While these statements may appear similar to those used in creating a spreadsheet, they function more effectively because they are not tied to individual cells. MVP uses the logic in the relationship between labels instead of their position in the spreadsheet to perform its calculations. You can think of this function as being similar to range names in some spreadsheets, but it is much more flexible.

Once you've created a script file, you must compile it using the MVP compiler to create a spreadsheet. Although the script file is a description of a spreadsheet, it isn't a spreadsheet itself. To compile a script file, just go to the directory with the MVP Compiler and type "compile" followed by the filename.

Compiling converts the script file into a model file that will be displayed in spreadsheet form after entering MVP. Although the Compiler is priced separately, new MVP spreadsheet models cannot be created without it.

Once you've created a model in spreadsheet form, you'll find yourself on familiar ground. Getting around the MVP screen is much like navigating any spreadsheet.

The screen is divided into five parts. The top is a name block that displays the name of the current file.

The next section is the spreadsheet itself. You won't see the usual vertical and horizontal grid here, though everything is displayed in column and row relationships.

A status line, a prompt block, and an input line at the bottom of the screen all perform functions similar to those found in conventional spreadsheets.

Once the spreadsheet model is displayed, you may begin entering data and solving problems. It is here that an important advantage of MVP is seen. Since the model file and the data are separate files, you may save them separately. If you want to change your model, you don't have to change the data. If you want to use the same model with different data, you don't have to worry about erasing the old data. And, of course, standard model files may be transferred for use within separate divisions or departments within a company.

Is MVP "easy" to learn? No, it isn't. This program isn't intended for the casual spreadsheet user. From its enormous storage requirements to its unconventional structure, it is obviously intended for advanced users in a corporate environment.

Unless you already are skilled in the use of electronic spreadsheets and computers, you probably would not benefit from MVP. However, corporate users frustrated by the limitations of most electronic spreadsheets may find it worth looking into.

Bell Atlantic offers a total corporate license for $50,000. Classroom training also is available.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

Trademarks: IBM, IBM PC, PC-XT, PC-AT and PC-DOS (International Business Machines Corp.); MS-DOS (Microsoft Inc.); Okidata Microline (Okidata Div. of Oki America Inc.).

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EnerGraphics 2.01

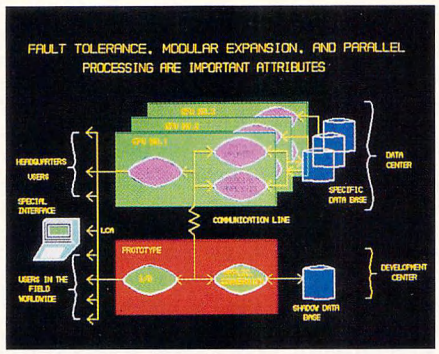
Charts, Draws and Does Slide Shows

Enertronics Research
#5 Station Plaza
1910 Pine St.
St. Louis, MO 63103
314/421-2771

Computers: IBM PC, PC-XT, PC-AT and compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires at least two 320K diskette drives or one diskette drive and a hard disk.
Copy Protection: None.
Required Peripherals: Color or monochrome monitor with graphics capability provided by CGA, EGA, 3270PC Full Screen, Hercules Monochrome or compatible video adapter.
Other Requirements: Minimum 384K RAM.
Optional Items: Dot-matrix printer (supports more than three dozen black-and-white or color brands and models including Epson, IBM, NEC, Okidata, Toshiba, Hewlett-Packard and others); plotter (supports 22 brands and models including Amdek, Epson, Hewlett-Packard, Houston Instruments and others); image recorder (Polaroid Palette); digitizer (supports nine types including Calcomp, Summagraphics and Kurta pads and Microsoft or Mouse Systems serial-port mice).
System used for test: 640K Compaq Deskpro Model 2 with two diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), Amdek Color 722 RGB monitor, Video-7 VEGA Deluxe EGA video adapter, Torrington Manager Mouse; Toshiba P351 and Epson FX-85 printers; running IBM PC-DOS 2.10.
Suggested Retail Prices: $595 for EnerGraphics; $199 for EnerMerge graphics capturing program.

Reviewed by Ernest E. Mau

EnerGraphics 2.01 provides business charts, drawings and automated slide presentations. In charting mode, it handles pie, line, bar and text charts, with all but text charts available in two or three dimensions. In drawing mode, it provides freehand functions and drawing primitives for lines, polylines, circles, arcs and curves plus the ability to use predefined symbols and templates.



This is a moderately powerful package with many features sought for business graphics. For charts, one picks a chart type and enters data into structured screens that step through values, colors, patterns, labels, titles and the like. EnerGraphics offers nine frames types, including multiple type fonts, adjustable positioning and selectable line thicknesses. It handles exploded pie segments, high/low and high/low/close charts, scatter diagrams, fitted curves, linear regressions, horizontal and vertical bars, stacked or overlapped bars and others.

Besides accepting keyboard data, EnerGraphics accepts inputs from ".DIF" files (Lotus products) and ".MPP" files (Multiplan) through its conversion utility.

Editing functions manipulate all chart elements to move pieces, change fonts, alter colors, add symbols and take other steps to customize charts. However, navigating through editing functions can be tricky; under keyboard control, it is difficult to zero in on component markers, and mouse control isn't well implemented. It is easy to miskey menu instructions since one must be concerned simultaneously with function keys, cursor keys, the space bar, the enter key and others. Practice helps, but editing isn't always simple or foolproof.

Two EnerGraphics charting features are unique. One lets the user define a mathematical function, save it and plot resulting curves from data points. The other merges as many as four charts onto a single screen, with control of the size and position of each chart. Merging partially offsets the lack of thinglike multiple pies on a single chart and allows considerable latitude and creativity in preparing presentations.

The drawing mode is less effective and seems slightly crude compared with other packages. Not that it can't do its job, but it suffers from the same navigational complexities as chart editing and lacks some functions. While it has arc, circle and line functions with selections of colors, eight line types and settable line thicknesses, it provides no inherent functions for rectangles, regular polygons, ellipses and other popular shapes.

Its zooming function is limited to six preset steps, without the flexibility of zooming into an adjustable window or quickly restoring previous or original views. EnerGraphics also is sluggish at redrawing screens, so extensive zooming can be time consuming.

Templates let the user create, save and recall symbols as needed. Templates provided with the package are crude but can be enhanced or replaced as necessary

Other functions are nicely implemented. "Painting" can fill any bounded area with a pattern and isn't limited to certain shapes as some other programs are. EnerGraphics also lets the user design and save three-dimensional shapes (and text characters), with full control of size, depth and rotation around three axes.

Surprisingly, charting and drawing modes are not integrated and use mutually incompatible files. Users cannot create charts and move them into the drawing editor to be touched up. Nor can drawing files be merged with chart files on a single screen.

Slide presentations are simple to create, requiring only that slides saved in charting or drawing modes be identified and given designated screen positions, display times and scrolling methods. Although the program provides no animation, it has nine methods of screen scrolling. It is supposed to have a means of changing background colors for slide presentations, but that hasn't been implemented yet.

EnerGraphics works with various video adapters and displays, but its real abilities aren't seen without an EGA display. I consider CGA displays too coarse, lacking readability and being unable to display colors in drawing mode (two medium-resolution palettes are usable in charting mode).

Dot-matrix printing isn't ideal. EnerGraphics can print enhanced or unenhanced modes with selectable scaling, positioning and rotation but doesn't offer multiple passes. Worse, it cannot distinguish between colors with a non-color printer. Printing adjoining solid colors provides no differentiation, so printable charts or drawings must be

created with patterns instead of solids.

Within its limitations, EnerGraphics is a capable program. It won't match some heavyweight packages now on the market, but it doesn't cost $1,000 or more either.

I recommend against buying the companion EnerMerge 1.0 package, however. It lets users capture graphics and print them from within word processing documents, but this licensed version of APG Software's Inset 1.0 lacks EGA capability. I advise waiting until EnerMerge is upgraded to the much improved Inset 2.0.

Ernest E. Mau, a full-time free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 300 articles on microcomputer products and applications.*

Trademarks: Alpha-10, IOMEGA and Bernoulli Box (IOMEGA Corp.); Compaq and Deskpro (Compaq Computer Corp.); EnerGraphics and EnerMerge (Enertronics Research Inc.); Epson and Epson FX (Epson America Inc.); IBM, PC, PC-XT, PC-AT and PC-DOS (International Business Machines Corp.); Inset (American Programmers Guild Ltd.); Lotus (Lotus Development Corp.); Manager Mouse (The Torrington Co.); MS-DOS and Multiplan (Microsoft Inc.); Polaroid and Polaroid Palette (Polaroid Corp.); VEGA Deluxe (Video-7 Inc.).

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Electronic Edition Software Reviews

The following reviews are available this month on *Online Today Electronic Edition* by typing GO OLT-230 at any CompuServe Information Service prompt.

Speedterm 128 and Sixth Sense 128 Telecommunications
Manufacturers: *Abacus Software and Prism Software.*
Computer: *Commodore 128.*

MacMoney Accounting and Budgeting
Manufacturer: *Survivor Software, Ltd.*
Computers: *512K Macintosh, Macintosh XL/Macworks or Lisa.*

Macintosh Isgur Portfolio System
Manufacturer: *Batteries Included, Inc.*
Computers: *512K Macintosh, Macintosh Plus or XL/Macworks.*

Generic CADD 2.0 Design & Drafting
Manufacturer: *Generic Software, Inc.*
Computers: *IBM PC, PC-XT, PC-AT and compatibles.*

Popcorn Application Series
Manufacturer: *Popcorn Software.*
Computers: *IBM PC, PC-XT, PC-AT and compatibles.*

Pizazz Graphics Screen Printing
Manufacturer: *Application Techniques.*
Computers: *IBM PC, PC-XT, PC-AT and compatibles.*

Words & Figures Spreadsheet, Word Processor And Auditor
Manufacturer: *Lifetree Software, Inc.*
Computers: *IBM PC, PC-XT, PC-AT and compatibles.*

Inset 2 Text And Graphics Merging
Manufacturer: *American Programmers Guild, Ltd.*
Computers: *IBM PC, PC-XT, PC-AT and compatibles.*

Check-It-Out Checkbook Management
Manufacturer: *Computer Programming Associates, Inc.*
Computers: *IBM PC, PC-XT, PC-AT and compatibles.*

Pascal-2 Programming Language
Manufacturer: *Oregon Software, Inc.*
Computers: *IBM PC, PC-XT, PC-AT and compatibles.*

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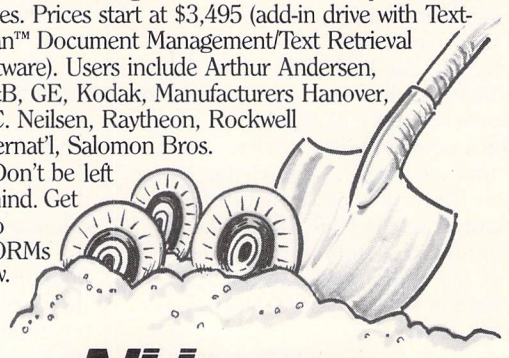

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The Woman's Work-at-Home Handbook:

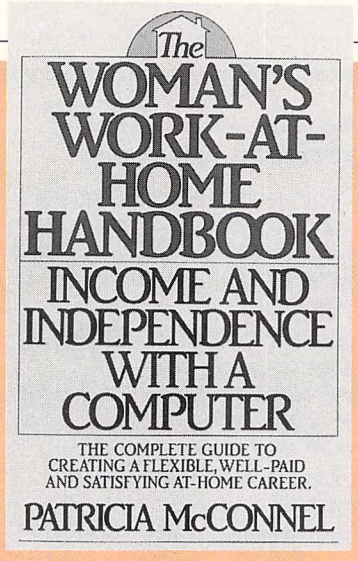
Income and Independence with a Computer

By Patricia McConnel
Bantam Books, 1986
334 pages, $9.95 (softcover)
Reviewed by Susan Katz

The Woman's Work-at-Home Handbook is a process-oriented book, refreshing in the realm of computer books. McConnel's preface sets the tone with its subtitle, "How owning a computer has changed my life."

This is adamantly not a technical manual. It is aimed at people (specifically women, although men exploring the possibility of working at home also might find the information helpful) who have not yet started computing.

Far from being an urgent essay, it is a handbook for people interested in creating their own electronic cottages. McConnel cites vivid examples and case histories of women who have created successful careers with home-based, computerized businesses, and she lists resource information, such as Control Data's "Homework" program and the Women's Computer Literacy Project, that provide support and training. The book then suggests ideas for computerized work and mentions specific software programs already available.



In the electronic cottage: *McConnel*

McConnel cheerleads all the way through: "If I can do this, you can, too." Her tone, coupled with the extensive lists of specific programs and information, sets her book apart from others on this topic.

Ironically, though, it is McConnel's ardency that detracts from some of the factual information. When discussing computer choices, for instance, she sets budget limitations as a main criterion and gets carried away recommending the Atari ST. The book would have been more useful had she mentioned budget restrictions as only one facet of computer choice. Another glaring omission is her failure to mention Apple computers in the section titled "A Strategy for Buying Hardware."

The book could have been enhanced with more stories of women using their computers in ways other than data entry, word processing and programming. More interesting are the stories of such women as Carol Bjorling, who runs her Illinois farm by computer.

Even with these reservations, however, I found the book to be a useful addition to a fledgling computerist's or would-be electronic cottager's bookshelf. McConnel's attitude toward women joining the computer revolution, overcoming "technoterror," and raising their daughters to be part of the new technological age provides much food for thought.

Susan Katz, a free-lance writer from Raleigh, N.C., writes the monthly computer column, "Home Tech," for The Spectator *magazine. Her CompuServe User ID number is 72277,107.*

MS-DOS Power User's Guide

By Jonathan Kamin
Sybex, 1986
397 pages, $19.95 (softcover)
Reviewed by James Moran

Those who use MS-DOS or one of its many variations (PC-DOS included) eventually wander beyond the few basic commands in search of more power over the system. Where once a simple directory or file listings were all that were needed, the user ventures into the unknown territory of batch files with graphics or pipelining. But eventually, even that once exotic knowledge is not enough. Enter the power user, that insatiably curious soul who seeks to exploit all the system's capabilities. That is the audience for whom Jonathan Kamin wrote the *MS-DOS Power User's Guide*.

This book promises to be a practical, powerful and complete guide. In a somewhat inauspicious beginning, the first five chapters center on subjects that those striving to be power users already should have mastered. With the possible exception of small sections on the DEBUG function and some esoteric hard-disk information, aspiring power users may well decide to begin this book at Chapter 6. For those interested, the beginning chapters contain historical information on DOS, some useful disk information, suggestions on using and obtaining software and an introduction to batch file "programming."

About 100 pages into the book, what the title promises begins to be delivered. Chapters on advanced uses of the batch file language and one on redirection, pipes and filters contain information that is difficult to ferret out from other sources. A low-level chapter for the novice on configuring a system interrupts the flow of the book, but things lurch back into gear with a chapter on keyboard customizing and another on creating and enhancing DOS commands.

By the halfway point, *MS-DOS Power User's Guide* is exploring advanced file and directory management. After those chapters it becomes downright esoteric as the author explores data recovery from bad disks. More of the same is presented in chapters that discuss the management of RAM disks and hard disks.

A final chapter about controlling and spooling printers ends the major narrative portion of the book. There are seven small appendixes, most of which are included for the reader's convenience. The one exception is an appendix that lightly touches upon the special features of DOS 3.1 and 3.2.

I doubt there are more convenient sources from which to learn the mastery of MS-DOS. This book almost could have been split into two separate texts —one for intermediate users and one for advanced —but that is hardly a serious criticism. The writing is clear, and those who want to know more about MS-DOS will not be disappointed with this book.

James Moran is a free-lance writer and frequent contributor to Online Today. *His CompuServe User ID number is 70007,2253.*

Fast Facts Online:

Search Strategies for Finding Business Information

By Dan Ness Jr.
Dow Jones-Irwin, 1986
548 pages, $34.95 (softcover)
Reviewed by William J. Lynott

Of the dozen or so reference books I've seen on finding business information in online databases, I like *Fast Facts Online* best. Everything the average business person is likely to need on this subject is crammed into this hefty but orderly softcover text.

Author Dan Ness begins with a short, informative chapter in which he provides background information on the sources and types of online databases. Many of the questions likely to be asked by new database users are answered here: Why use an online database? What are the benefits? What can I expect in the way of cost?

Chapter 2 gets down to practical considerations with a discussion on the strategy and tactics involved in finding needed information in the least time at the lowest practical cost. Here, you'll learn about the use of logical operators to narrow or broaden your search parameters, and what to do when your search turns up too much or too little information. Under the heading "Specific Techniques," the author has listed tips that would take much trial and error to learn on your own. In particular, he explains basic terms, punctuation and keywords as they are used in different business databases.

Chapters 3 and 4, which make up the largest part of the book, are massive listings of available databases arranged alphabetically and by subject. For each of the 32 subject categories, databases are ranked according to their depth of coverage. Within each of these rankings, the subjects are arranged by vendor.

The 32 subjects are subheads of 10 major classifications: current events, corporate identity, corporate form, corporate position and direction, corporate financial data, corporate management, corporate securities, corporate marketing practices, markets and management. Brief descriptions of each category will provide you with an effective road map for locating the logical sources of the business information you need.

Chapter 5, "Database Notes," provides basic information on the major database vendors. Here, you will find such things as the codes used in indexes, various methods used to index information, such as company name or stock exchange symbol, and special features of each database.

Chapter 6 contains a listing of each of the nine major business database vendors, including CompuServe, Dow Jones and NewsNet. Included here are such things as current subscription fees and online charge rates, addresses and telephone numbers and brief instructions on the procedures for signing up.

Finally, several appendixes include software switch settings required for each vendor and a bibliography of related books. Also included is a list of so-called stop words or noise words. These are common words usually not indexed by the databases either because they occur too frequently or are reserved as command words. This list is a potential time and money saver.

Fast Facts Online is a practical book for business users. It will be a valuable tool for those who want to know where to find information on business news, market trends, corporate statistics and financial data.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

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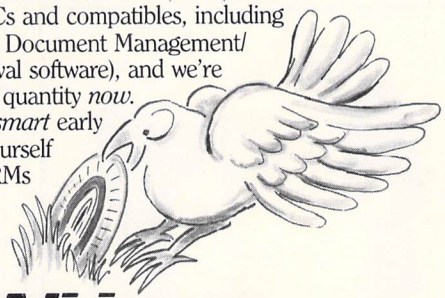

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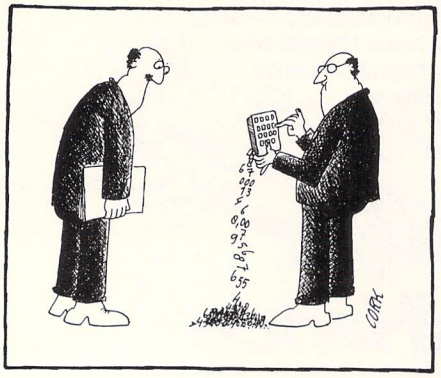


Mastering Microsoft Works

By Sharon Zardetto Aker
COMPUTE! Publications
287 pages, $16.95
Reviewed by John Edwards

Who says "You can't have it all"? Certainly not the Apple Macintosh owners who use Microsoft Works. After all, when you have five integrated programs—word processor, database, spreadsheet, graphics and communications—tucked inside your computer, you have just about all the software you'll ever need. If Microsoft had tossed a game or two and a diet management program into the brew, Works users would be set for life.

No doubt about it, Microsoft has created a fine program. The only problem with such an ambitious software package is that users can be hard-pressed to master the system within a reasonable length of time. Works isn't the sort of package you get the hang of in an hour or two. It usually takes weeks of practice before you can fully appreciate the scope and power of the software.

Like most how-to computer books, *Mastering Microsoft Works* promises to help speed the learning process. According to its cover blurb, the book "shows you how to make the most of all the features of Works and how each feature can best help with your personal and business computing needs." This it does. But, as most readers of the book will quickly realize, so does the documentation Microsoft ships with Works. And the Microsoft documentation costs the user nothing extra.

Mastering Microsoft Works is a classic example of the state of today's how-to computer book market. Back in the early days of personal computer software, Microsoft—and most other program publishers—produced user manuals that were poorly written, hard to understand and generally arcane. Today, however, Microsoft produces superb documentation, certainly equal to the material found in *Mastering Microsoft Works*.

The day of the general-purpose how-to computer book has passed, but someone forgot to inform the book publishers. Visit a local book store and you'll find the shelves crammed with texts promising to help readers master the best-selling personal computer programs. The promises, however, are usually empty, and readers typically receive little more than a mindless parroting of the product's original documentation.

If how-to publishers and authors truly wanted to help their readers, they would aim their books at specific, vertical niches. *Mastering Microsoft Works for Accountants* or *Mastering Microsoft Works for Students*, for instance. Such books would provide tightly focused information and programming examples that the software publisher's documentation could not even attempt to cover. But book publishers and authors don't like small niches, small markets or small revenues. So we end up with these big, thick books that make lofty promises and try to accommodate all users, but actually give readers little more than a bland overview. We end up with iteration instead of insight.

This isn't to say that *Mastering Microsoft Works* is a bad book. It isn't. It offers a sensible, well-written description of Works' features. The examples provide hands-on experience that will help readers more fully understand many of the software's intricacies. The problem is, I did not find much in the book that wasn't already adequately explained in Microsoft's documentation.

In other words, *Mastering Microsoft Works* is not a masterwork, and I really can't think of a reason why anyone should buy it.

John Edwards' latest book is Law Office Guide to Small Computers, *published by Shepard's/McGraw-Hill. His CompuServe User ID number is 70007,412.*

Electronic Edition Book Reviews

The following book reviews are available this month in *Online Today Electronic Edition* by typing GO OLT-240 at any CompuServe Information Service prompt.

Software People, *by Douglas G. Carlston, Prentice-Hall.*
Commodore 128 Programming Secrets, *by William M. Wiese, Jr., Osborne/McGraw-Hill.*
The ABC's of dBASE III Plus, *by Robert Coward, Sybex.*
Using Turbo Prolog, *by Phillip R. Robinson, Osborne/McGraw- Hill.*
Quick Start Guide for 12 Top PC Programs, *by John Rafferty and Sandra Jerome, En Route Books.*

Practical Peripherals' Complete System

Practical Peripherals has bundled its half-card, Hayes-compatible Practical Modem 1200 for the IBM PC family with leading communication and desktop organizer software plus a discount subscription offer to CompuServe and two other online services to create the Complete Telecommunications System.

Selling for $199, the package includes PFS Access communication software from Software Publishing Corp. and Pop-Up Deskset Plus from Popular Programs. The Practical Modem 1200 features auto-dial/auto-answer and operates at 1200 or 300 baud with automatic adaptive equalization for consistent, error-free operation. Pulse or tone dialing, a volume-controlled speaker and two phone jacks also are included.

For information, contact Practical Peripherals, 31245 La Baya Dr., Westlake Village, CA 91362; 818/991-8200.

Blast Host

The cost of tying remote IBM PC or minicomputer sites to a central host has been dramatically reduced by a new product from Communications Research Group called Blast Host, which allows minicomputers or IBM PCs to connect to mainframes without adding extra hardware or add-on boards.

The Blast Host operates as an application program to connect IBM PC or minicomputers to a remote host and transfer files back and forth between multiple systems. It offers advanced protocol, which works over any asynchronous line. The IBM PC version sells for $250, while the minicomputer and mainframe prices range from $495 to $5,500.

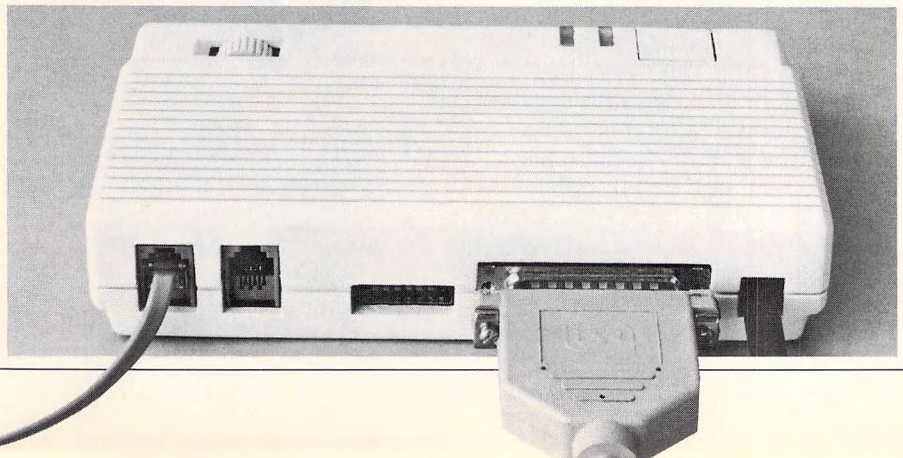
For information, contact Communications Research Group, 5615 Corporate Blvd., Third Floor, Baton Rouge, LA 70808; 504/923-0888.

What a Sport!

USRobotics Inc. has introduced The Sportster, a 300/1200 bps modem that features auto-dial/auto-answer capabilities.

Selling for $149, the stand-alone modem supports the full, industry standard "AT" modem command set, making it compatible with virtually all popular data communications software. It can be connected with any personal computer or data terminal equipped with an RS-232C serial interface.

For information, contact USRobotics Inc., 8100 N. McCormick Blvd., Skokie, IL 60076; 312/982-5010.



Smart Modems

SCOA Systems has introduced the Starcom 1200 and the Starcom 2400, intelligent, internal/external high-speed modems.

Specifically designed for use with the IBM family of personal computers and compatibles, the modems are capable of 1200 bps and 2400 bps. The Starcom 1200 internal model comes in a half-card form factor, and the Starcom 2400 features a full-length, full-feature design. The external models are constructed of heavy-duty steel and connect directly to a standard RS-232C serial port.

For information, contact SCOA Systems, 2100 Golf Rd., Suite 100, Rolling Meadows, IL 60008; 312/640-8782.

Electronic Edition Product Announcements

The following new product announcements are available this month in *Online Today Electronic Edition* by typing GO OLT-250 at any CompuServe Information Service prompt.

Turbo C, *optimizing C compiler for microcomputers, Borland International.*

Zenith Color Monitor ZVM-1380, *Zenith Data Systems.*

Concorde (Version 2.0), *enhanced graphics software for the IBM PC, XT, AT and compatibles, AT&T and Olivetti, Visual Communications Network.*

RAMUP, *utility software that links Apple programs, Quality Computers.*

Professional Writer's Package, *word processor for MS-DOS, UNIX, XENIX and DEC VAX, Emerging Technology.*

TranscriBEX, *word processor for the Apple II that supports Braille translation and formatting, Raised Dot Computing.*

PC-File+, *database program for the IBM PC family, ButtonWare.*

Master Tracks Pro, *professional MIDI recording and editing package for the Macintosh, Apple IIGS, IIe and Commodore 128, Passport Designs Inc.*

Serial Pro, *serial port and clock/calendar for the Apple II family, Applied Engineering.*

LAP-LINK, *serial transfer kit for use between IBM-compatible laptop and desktop computers, Traveling Software.*

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May issue, not valid after August 1987.

Electronic Encyclopedia Keeps Up With Changes

When I was about three, my dad bought the household a set of Encyclopedia Britannicas, 25 volumes in a two-shelve bookcase. History must have moved slower in the early 1950s, because it was thought that the fine set of books would serve me through most of my schooling.

However, it didn't take long—about the time of Sputnik, I guess—for it to become clear that the printed word was going to have a devil of time keeping up with the new pace of current events. By the mid-1960s, the pages of the over-sized maroon leather-bound volumes were beginning to look a little quaint. Today—I still have the set in our study—the volumes are a curiosity, still important to me as a souvenir, but less useful as a reference source.

These days, I depend on an encyclopedia that is updated and revised four times a year: Grolier's *Academic American Encyclopedia*, accessible from the electronic bookshelf of CompuServe (GO AAE).

The *Academic American Encyclopedia* has more than 32,000 articles, fact boxes, bibliographies and tables. If it were reproduced in print, it would be a 21-volume work containing more than 9 million words.

Besides its timeliness, what's special about Grolier's AAE is:

- It's searchable by keywords. You can enter something quite general, such as HORSE, and then narrow the search down to the specific subject by examining the list of articles retrieved; or you can start by entering keywords such as ITALY, HISTORY OF and get right to the heart of the matter.
- It's a "quick read" because of the way complex subjects are organized. If you ask the *Academic American Encyclopedia* for its article on FRANCE, it will produce an outline with a menu that lets you jump into the middle of the entry, directly to the portions dealing with "Land," "People," "Economic Activity" or "Government." In addition, some topics are broken down even further. Under the "Land" section, there usually is a menu to take you to discussions of soils, climate, vegetation, animal life, resources, and so forth.

Grolier's *Academic American Encyclopedia* is an extra-cost service of CompuServe. You can subscribe for one month, six months or a year and use the online encyclopedia as often as you like during the period. Details on subscriptions, including the latest rates, are available through the AAE main menu.

AAE recognizes the usual CompuServe navigational commands, plus one. At any prompt within the encyclopedia, you can type SE (for search) followed by a keyword. Then the service will sort through its entries and display in menu form a list of titles matching the term.

On most searches (keywords that are three letters or longer), the encyclopedia finds all entries beginning with those characters. So CAT will find CAT, CATS, CATERPILLAR, CATACOMB... well, you get the idea.

Fortunately, the service also recognizes a pound sign (#) to use in specifying a search term. If you use a # at the end of a keyword—as in SE CAT#—the system finds only the articles that match the term exactly.

(Incidentally, with keywords shorter than three letters, the *AAE* retrieves only those entries that match exactly. Thus, searching for "PI" would find *pi* — the ratio of the circumference of a circle, — but not *piranha*.)

Grolier's seems to have given a lot of thought to the keywords it recognizes. Several kinds of cross references also are available in the articles themselves to direct users to additional material. Nonetheless, people still sometimes cannot find what they're looking for. I think you can avoid that, though, if you think about your search while you're still offline.

Here are some tips for planning a search:

- Have alternate terms in mind. If you cannot find an entry under MOVIES, be prepared to try MOTION PICTURES or FILMS.
- Include on that list broad, categorical terms. Grolier's notes, for instance, that there is no entry for BALD EAGLE, but that information about it can be found under EAGLE.
- If in doubt about the spelling, type only as much of the word as you're sure of. For instance, if you type BRZ, you'll find BRZEZINSKI.
- However, don't let that get to be a crutch. It doesn't hurt to check the spelling before going online. Misspelled keywords are the most common reason for failure to find entries. Recently, I was grumbling at Grolier's because I couldn't find an entry on "John Ehrlichman." Later I found out why when I discovered the Watergate character's name was "John Ehrlichman." When I spelled the keywords correctly, the search worked just fine.

Having access to such an up-to-date encyclopedia is particularly valuable if current statistics are important to you. Many of the articles are accompanied by "fact boxes" that give summaries of material for quick reference. You can expect to find fact boxes with all articles about countries, continents, states, Canadian provinces and US presidents.

Even better, several hundred of the entries display tables of statistics, such as sports records, awards and prizes, and industry production data. (By the way, the *AAE* displays all of its tables in 39-character lines.) If an article has an accompanying table available, the system will call your attention to it on a menu display before the text begins.

Finally, if you're curious about the online encyclopedia but are not yet ready to commit any money for a subscription, you might want to take advantage of free demonstrations. Grolier's has pulled out about 100 entries from various subjects—such as sports, arts, biographies, issues, history and science—and you may have a free look at the sample entries. After you select a general category, the service will list up to two dozen topics. Under arts and entertainment, for instance, you can look at sample entries ranging from English literature to Mozart to Sam Shepard to Michael Jackson.

To get on the tour bus, type GO AAE at any prompt and look for the "Demo the Encyclopedia" option on the introductory menu.

Charles Bowen, co-author of How to Get The Most Out of CompuServe, *is a contributing editor of* Online Today. *His CompuServe User ID number is 70007,411.*

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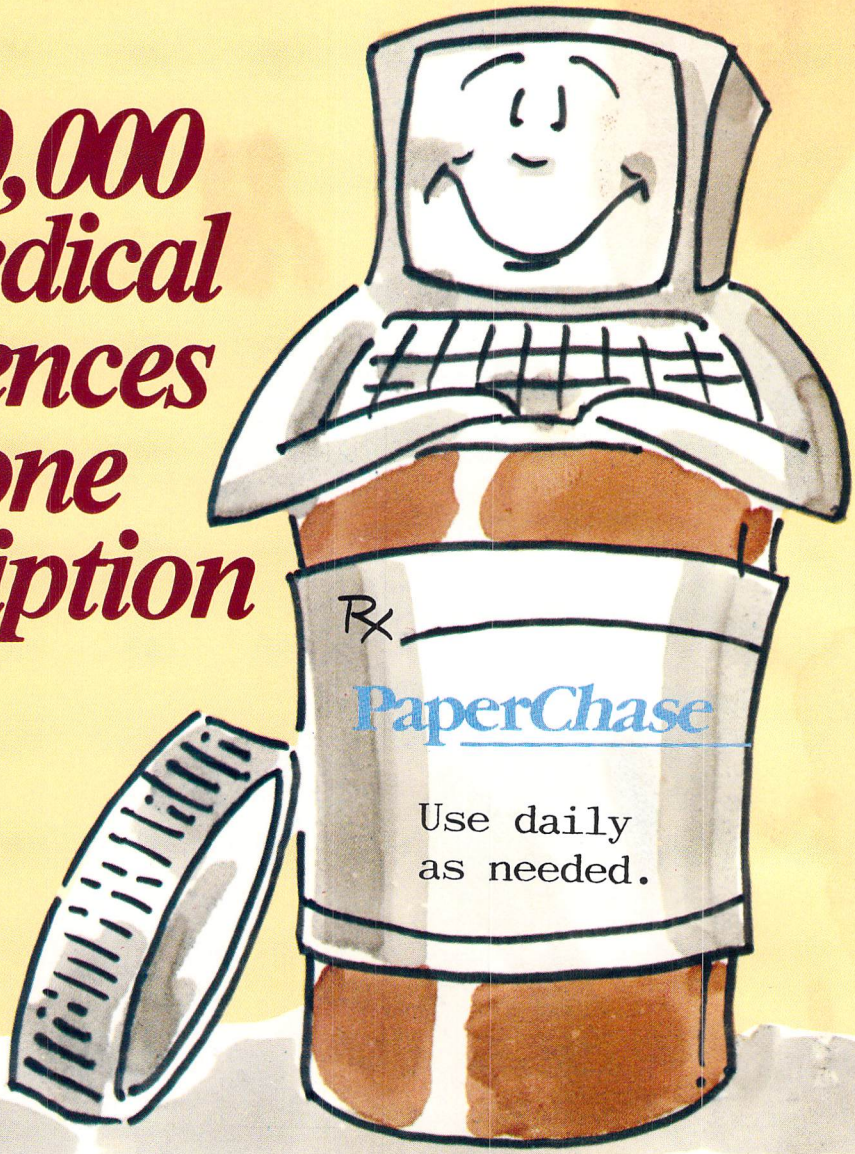

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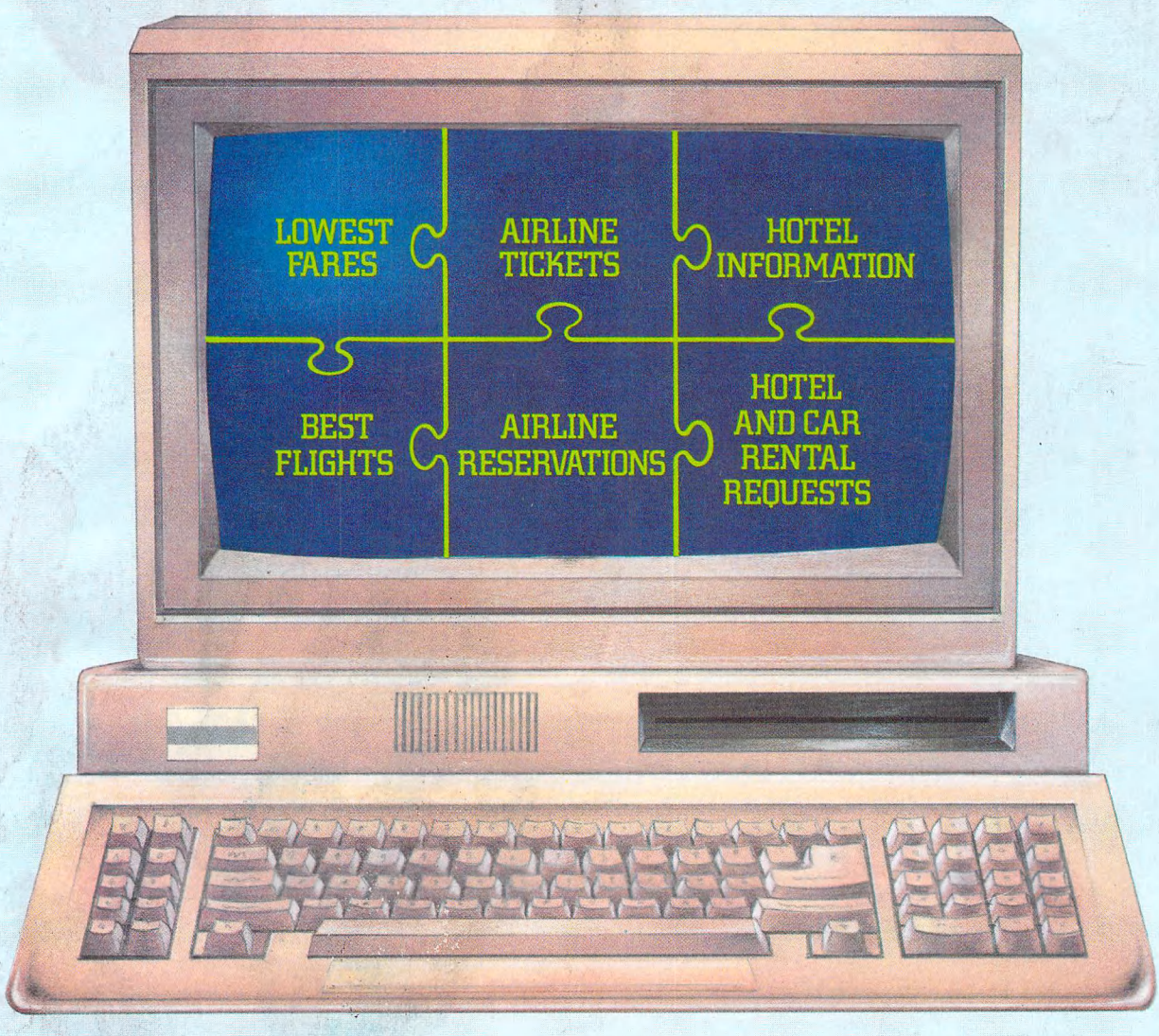

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